Motorized FlexShade System by Draper, Inc

Specifications

Equipment

Electric Operator: Drive unit inside roller, 4-wire, instantly reversible, lifetime lubricated. Right hand motor location standard. Left hand available. Adjustable limit switches, thermal overload protector and electric brake. Operates on 110-120V AC 1 PH 60 HZ current. Draws 1.2 Amps. For controls, see IntelliFlex® Controls Reference Sheet and IntelliFlex Controls Planning Sheet.

Hardware

Rollers: Size – 2" dia. with .080 wall, in steel or extruded aluminum. 3" dia. Steel tube available. Roller assembly easily removable.

Mounting Brackets: 1018 plated steel stamping. Sizes 1-5/8" and 2-1/4". Styles for mounting to wall, ceiling, or jamb. Brackets do not require additional adapters.

Roller Idler Assembly: Type 6/6 injected molded nylon and a zinc-plated cold rolled steel pin. Sliding pin for easy installation and removal of the roller.

Slat: Aluminum, min. 1/8" x 1", encased in heat seamed hem.

Endcaps: 1028 steel stamping. 2 sizes: 3-1/4" x 3-3/4" and 4-1/2" x 4-1/2". Complete with adapter roller bracket. Installs to wall, ceiling, or jamb. Accepts snap-lock fascia or headbox. Silver (standard), black, white, ivory or charcoal bronze powder coat finish available.

Endcap Covers: Plastic covers snap onto endcaps. Available in ivory, dark bronze, black or white to match fascia.

Fascia: L-shaped cover of extruded aluminum, .060 wall. Snap-lock assembly to endcaps without exposed fasteners. Silver (standard), black, white, ivory, or charcoal bronze powder coat finish available. Continuous fascia available with coupled units.

Headbox: Standard consists of fascia, L-shaped back/top cover. Snap-lock assembly to endcaps. Optional, for pocket installation, includes a U-shaped back/ top/front cover with removable bottom closure panel. Small size: 3-3/8" x 3-7/8". Large size: 4-5/8" x 4-5/8". Some exposed fasteners required.

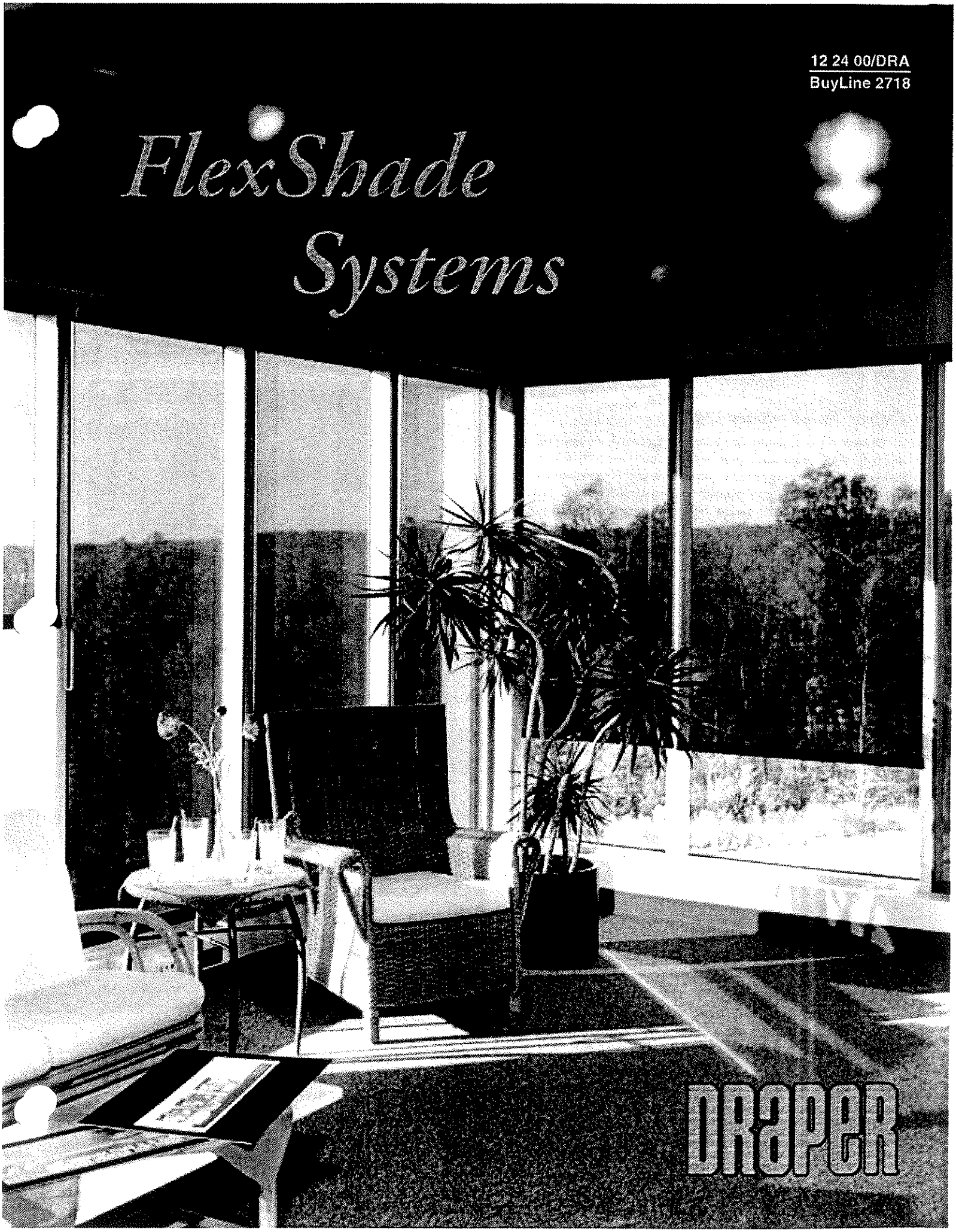
Type D Pocket: Type D Shade pocket to be fabricated of 6063–T5 aluminum alloy for perimeter installation. Accepts FlexShades installed with ceiling brackets. Finished in white paint. 4-1/2" x 4-5/8" x .125" with tile support lip and removable bottom closure. Not available with 3" roller.

Coupler Assembly: Coupler: Type 6 nylon. Coupler pins: 1018 zinc plated steel. Coupler brackets: 1018 zinc plated steel painted white with center steel bushing. Allows for one motor to drive up to 4 additional shade rollers. Overall width of group not to exceed 30'. Coupler assembly to fit 2" or 3" dia. rollers with adjacent rollers of the same diameter.

Please note: Dimensions of rollers, operators and hardware at manufacturer's discretion.

12 24 00/DRA
BuyLine 2718

FlexShade Systems



DRAPER

Table of Contents

Access FlexShade Systems....3-4
Motorized FlexShades....5-7
Manual FlexShades....8
Spring Roller Shades....9
LightBloc FlexShades....10
Skylight FlexShades....11
Controls....12
Hardware....13
FlexShade Panels....14
Roman FlexShades....15
Snugfolds....16
Fabrics....17-22
Graphics on FlexShades....23

Draper Shades—Since 1902

Draper, Inc.—a traditional leader in educational window shades and audio visual projection screens—also manufactures FlexShade Systems, the finest commercial window coverings. This custom shading System allows for almost unlimited flexibility in solar control. Quality is assured by Draper's 104 years in the window coverings industry.

FlexShades provide glare control, heat control and room darkening anywhere windows or skylights are found: classrooms and gymnasiums; offices, boardrooms and training rooms; military installations and laser labs; hospitals, extended care and nursing facilities; residences and home theatres; museums, darkrooms and any skylit space.

Draper FlexShades and IntelliFlex controls integrate fully into any audio-visual installation where our projection screens and video projector lifts and mounts are specified. With the most comprehensive range of projection screens and related products in the world, we offer a solution for virtually any presentation need. Intelligent design, quality materials and careful attention to detail ensure flawless performance in your new building.

Draper's motorized projection screens, video projector lifts and FlexShades can be operated in a variety of ways including two-way serial communication, network communication or Ethernet, low voltage control, radio frequency remote control, infrared remote control and single station control. Draper's products also work in conjunction with other manufacturer's controls, such as Crestron, Extron and AMX. You can fully automate your screens, lifts and shades.

For the finest in sunlight control—specify FlexShade.

Custom Shading

Each FlexShade product is built to order. Fabric, hardware and operating mechanisms are specified to satisfy functional and aesthetic criteria—Draper builds each unit for an exacting fit.

Draper offers the broadest variety of operator styles in the industry. Options include bead chain clutch, crank, spring roller, motorized roller-operated shades, and manual and motorized Roman shades.

Our spectrum of fabric colors and styles is unmatched. Woven mesh fabrics offer protection from heat, glare and UV rays, while maintaining the view. Soft translucent textiles offer designer appeal. And our opaque fabrics eliminate all visible light. Combine them with a LightBloc System, and you will achieve total blackout. All fabrics are fire retardant.

A few notable installations...

Freer Gallery—Smithsonian Institution, Washington, D.C.
Tommy Hilfiger, New York, New York
Wrigley Building, Chicago, Illinois
Citigroup, New York, New York
MBNA, Cleveland, Ohio
Hallmark, Kansas City, Missouri
Harvard University, Cambridge, Massachusetts
Xerox, Rochester, New York
Fila, Baltimore, Maryland
Fox Tower, Seattle, Washington
BMW, Greenville, South Carolina
Huntington Library, Pasadena, California
The Landmark Center, Boston, Massachusetts
Capital One, Tampa, Florida

FlexShade 2 window shades with "M" Screen 10% at University of Alabama at Birmingham Campus Recreation Center. Architect: Williams-Blackstock Architects, Birmingham, AL. Dealer: Erwin & Associates, Kimberly, AL. Photography: Curtis Photographics, Memphis, TN.

Draper has a tradition of product innovation. Watch for the logos at right to discover new products and features.

NEW

NEW FEATURE

The smartest shades are controlled with

IntelliFlex®

The shade control system with real brains.

The IntelliFlex® System is a breakthrough in intelligent controls. It offers a range of relays to control any type of motorized window covering.This relay system allows for bus communication control of a motor or group of motors though a wide range of input devices including infrared, radio frequency, dry contact, standard wall switch, and RS232.

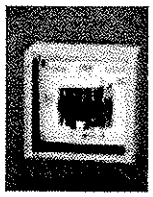
- All IntelliFlex components carry a Lifetime Replacement Guarantee (excluding timer and touchpad IR transmitter). Fully warranted against factory defects for life—superior to any other control system.
- Activate up to four intermediate stops.
- Automatic recalibration when shades go to upper or lower limits.
- Can be installed in group panel, or individually in junction boxes—drastically simplifies wiring requirements.
- The most sophisticated high voltage system on the market.
- Programmable through IR & RF transmitters, LCD learning IR transmitters, PCs, and keypads.
- You can control the system through the internet, IR & RF transmitters, LCD learning IR transmitters, PCs, sun and wind sensors, timers and wall keypads.
- Group, sub-group and individual control options available—as many as 360 combinations possible!
- Relays and controls are the most compact in the industry. Compact IR and RF receivers (send all 60 channels with 1 device!) plug into bus anywhere in the system.

Group Control

ISO-Relay

One isolating relay required for each motor. Allows you to daisy chain up to 12 ISO-Relays and control them using a single line voltage (110V-120V) switch. Operated by a standard SPDT 15-amp switch.

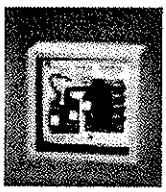
ISO-Relay



GC4

GC4

Four isolating relays in an 8" x 8" enclosure can be grouped together in banks of three to control up to 12 motors operating on a single SPDT 15-amp switch.



SGC4

SGC4

SGC4 allows control of up to 240 motors in groups of 4. Enables low voltage IR or RF controllers and remote programming.

Individual and Group Control

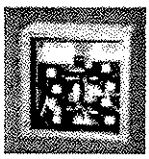
SC1

SC1

Each SC1 is an individual addressable and programmable single auto controller which has a microprocessor. Features include up to 4 intermediate stops, and a wide variety of input options (all shown at right).

If mounted in a deep gang junction box at motor location, no expensive home run wiring needed.

SPGC4

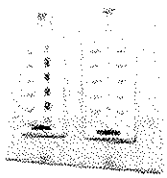


SPGC4

Individual and group control of up to 60 motors, with up to 4 mid-window stops. 8" x 8" enclosure. All the flexibility of the SC1, in a centralized location.

Controls/Input Devices

Intelliflex Wall Switch

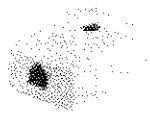


More than 50 combinations available in this intuitive, user-friendly wall switch.

The switch and its buttons are clearly marked and easy to understand. Site-specific overlay may be provided. Unlike competitive products, only one button must be activated per function—no cumbersome combinations required. Switch is capable of being reprogrammed to allow for various control scenarios. Switch may act as a group switch, an individual motor switch or any combination thereof.

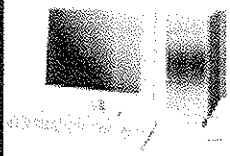
This input device can be used with SC1, SGC4 or SPGC4. The IntelliFlex switch is also available as a dry contact switch, a fully programmable bus interface wall switch or a fully programmable RF wall switch.

Sun Sensor



Automatically controls individual shade or groups of shades in response to the position of the sun. Can be used with SC1, SGC4 or SPGC4.

R2D7 Professional Integration Interface



Acts as additional bus system input device allowing a facilities manager to send commands to shade motors at any time to position shades appropriately for maximum utility and efficiency. This input device can be used with SC1, SGC4 or SPGC4.

Handheld Transmitter

Available in 6, 12 or 24 channels, IR or RF types. May act as a group control, an individual motor control or any combination thereof. This input device can be used with SC1, SGC4 or SPGC4. Requires receiver or "eye".

IntelliFlex may be controlled from any input device...wireless remote, PDA, PC... and many more.

24-channel Transmitter

12-channel Transmitter

ALTUS by Somfy

Alternatively, the ALTUS radio-frequency, remote controlled motor system is available. This stand-alone, versatile system allows grouping of motors through programming. Capable of one mid-window stopping position. Choice of wireless input devices, including one- and four-channel handheld transmitters, wall switches, sun and/or wind sensors, and a home automation interface module. Broad transmitting range with simplified wiring.

More details?

For more complete information about IntelliFlex components, visit our website, www.draperinc.com, to download technical documents.

Keep it simple!

Just tell us what you need the system to do, and we'll design it for you.

The Access System

Draper's Most Versatile Shading System...

A simple extruded aluminum headbox installed during construction is the secret of the Access System. Our Access headbox allows you, or the occupant, to make decisions about FlexShade window treatments at a later date. Think of the headbox as a place-holder installed during the rough-in stage of construction. After the window trim is finished and field measurements taken, you can fill that headbox with the FlexShade of your choice: manual or motorized, light blocking or light filtering, left- or right-hand operator and sized for a perfect fit.

(Due to the construction of the Ultimate Access FlexShade, the unit must ship factory assembled and without side channels. Details on page 5)

Even if the building's occupant changes color schemes, or Draper introduces a new shade fabric that is more suitable, it's no problem. It's quick, easy and comparatively inexpensive to replace the shade in an Access. Find Draper's Access FlexShade models below and on page 5.

Access Dual Roller, Access & Ultimate Access FlexShade Fabrics

Fabric selection is illustrated on pp. 17-24. Access and Ultimate Access FlexShades are on page 5.

- *1260, 1277 & 1309*
- *Colony*
- *"E" Screen*
- *Flocké*
- *"M" Screen*
- *Obion*
- *Roc-rol™*
- *Screen Nature*
- *Screen Vision & Screen²*
- *SheerWeave® Series PW3500/4100/4400*
- *SheerWeave® Series PW4800*
- *SheerWeave® Series SW2000/SW2100*
- *SheerWeave® Series SW2400/2600/2900*
- *SheerWeave® Series SW3000*
- *SheerWeave® Series SW5000*
- *SheerWeave® Series SW7000/SW7100*
- *SunBloc Series SB9000/9100*
- *Soltis® 99*
- *"T" Screen*

Access Dual Roller FlexShade

U.S. Patent Nos. 6,532,109 and 6,421,175. Other patents pending.

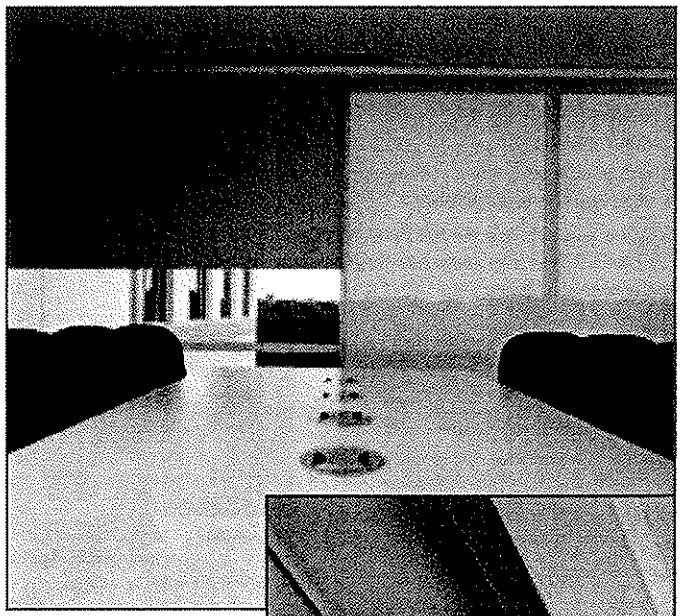
For a room with many purposes, choose the Access Dual Roller FlexShade System. This FlexShade allows for both glare control and room darkening in the same opening.

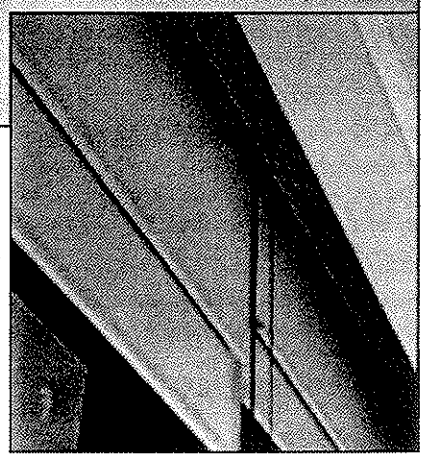
Two complete shades are vertically stacked in a single headbox. The Access Dual Roller FlexShade was designed to be ceiling recessed, but it can also be surface mounted. Choose from bead chain clutch, crank or motorized operation: both window shades will have the same type of operator. Combine a glare control fabric—mesh or translucent—with a free-hanging room darkening shade or with a LightBloc FlexShade style (side and sill channels) for complete blackout. The Access Dual Roller FlexShade headbox is white. Ceiling tile flange for a ceiling recessed installation is ¾" wide and optionally available. The bottom panel forms a slot for fabric passage and attaches easily without fasteners.

Exclusive Features

The Access Dual Roller FlexShade has a number of unique features:

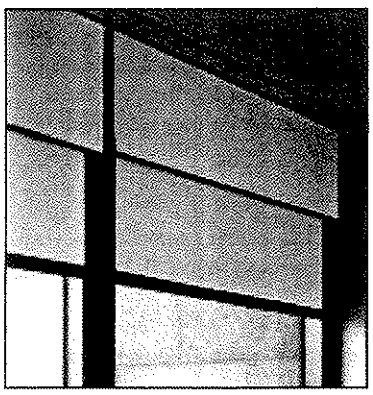
- **Continuous pocket** may be installed in the ceiling well in advance of the shades, allowing for easy coordination with various trades.
- Draper's **exclusive optional power connection** allows for pre-wiring of the pocket at either end prior to window shade installation. This feature can eliminate the need for an electrician when the window shades arrive.
- **Shades may be coupled** within the System, minimizing wiring and use of motors. (Coupled shades not suitable with LightBloc.)
- **Internal roller brackets** slide in a track, so they may be located wherever appropriate after the pocket is installed.
- **Movable suspension brackets** slide in grooves in the top of the extruded pocket for easy positioning and attachment to the overhead structure.
- **Design is compatible with the optional side and sill channels,** allowing the rear shade in the System to provide total blackout.





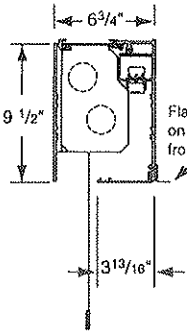
Above: Access Dual Roller FlexShades with "E" Screen and SB9000 at Citigroup. Architect: FS Architecture PSC. Installation: Best Blind & Shade. Photography: ©2005 Kenneth Hayden. All of Louisville, KY.

Photography, lower left: Andrew McKinney, San Francisco, CA.



Typical Access Dual Roller FlexShade

Since the Access Dual Roller FlexShade is engineered to meet the needs of specific installations, parameters may vary. Typically, choose a mesh fabric for glare control and UV protection, and a room darkening LightBloc for total light control. Maximum width for an Access Dual Roller FlexShade is 12'. Maximum height for a LightBloc in this product is 10'. Larger sizes may be available: contact Draper.

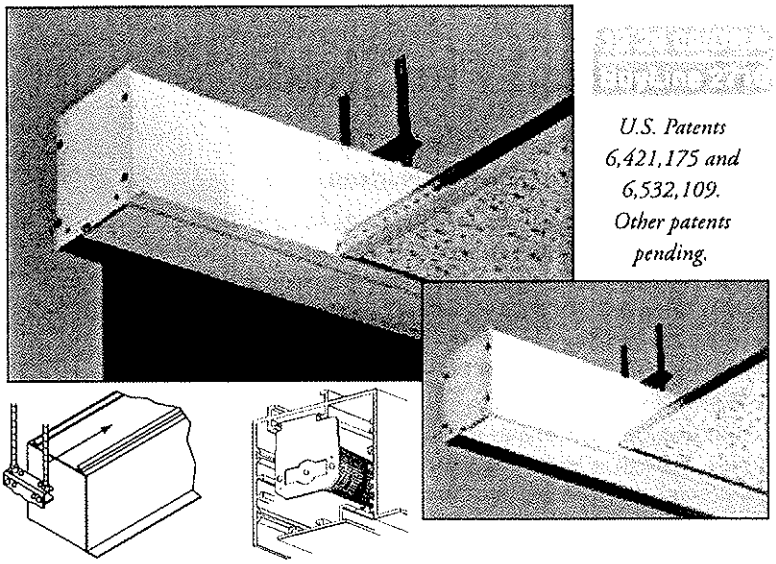


For all Draper FlexShades: Operators are standard on the right-hand side. For all clutch operation, stainless steel bead chain is standard, plastic bead chain is optional. For all clutch operation, the optional chain hold-down is designed to keep children from getting tangled in the cord.

Access FlexShade

The Access FlexShade is a single motorized or bead chain clutch operated shade in an extruded 12′ aluminum pocket. Pocket can be spliced/linked to form other lengths. The Access FlexShade is a versatile ceiling-recessed shade, offering you the following benefits—

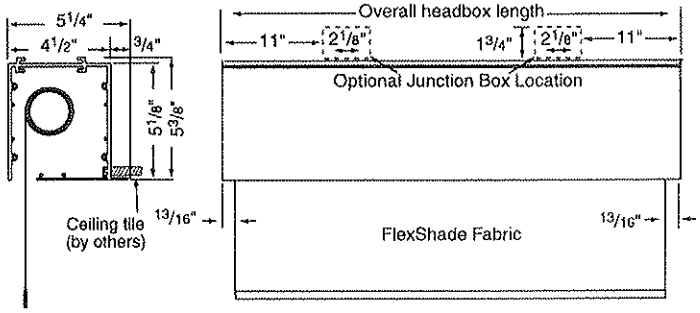
- The white extruded aluminum case can be installed in the ceiling quickly and easily during the "dirty" phase of the construction process.
- A flange along the front of the headbox supports acoustical ceiling tile, or trims the opening of any type of ceiling.
- A bottom panel forms a slot for passage of the shade, and is easily removed without tools for unobstructed access into the case for installation of the window shade.
- Case mounts easily with ⅜" threaded rod anywhere along the length of the case, with lag screws through top of case or hanger wire in a grid ceiling.
- The shade (motor-in-roller or clutch with attached shade fabric) can be installed at a later date in seconds with patented, twist-in roller brackets. These internal roller brackets slide in a track, so they may be located wherever appropriate after the pocket is installed. Minimizes job site damage.
- Choose a glare control fabric—mesh or translucent—or a free-hanging room darkening fabric.
- Engineered for specific installations. Depending on fabric, maximum recommended height is 10′. Larger sizes may be available: contact Draper for details.



U.S. Patents 6,421,175 and 6,532,109. Other patents pending.

Mounting brackets rotate into slots, and can slide along case.

Internal roller brackets adjust to align shade.



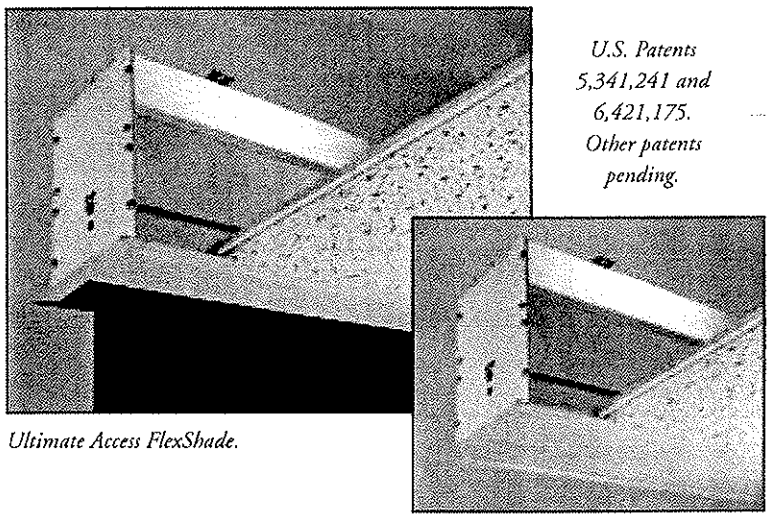
Ultimate Access FlexShade

The ultimate in shade design—a single motorized shade in an extruded aluminum case with an automatic ceiling closure that opens into the case. The Ultimate Access FlexShade is only available from Draper.

When closed, the motorized shade is completely hidden from view inside its case. The solid bottom panel gives the ceiling a clean appearance and protects the shade fabric from dust and dirt. At the touch of one switch or wireless transmitter, a separate motor opens the door into the case and then the motorized shade descends in front of the window.

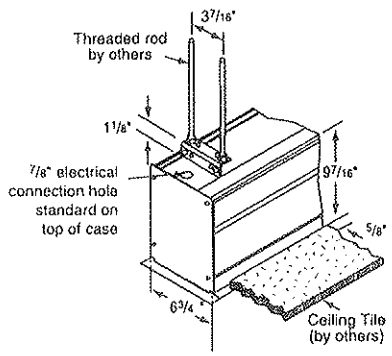
Choose a glare control fabric—mesh or translucent—or a free-hanging room darkening fabric. The Ultimate Access FlexShade case and ceiling closure are white where visible at the ceiling line.

Maximum recommended height is 12′.

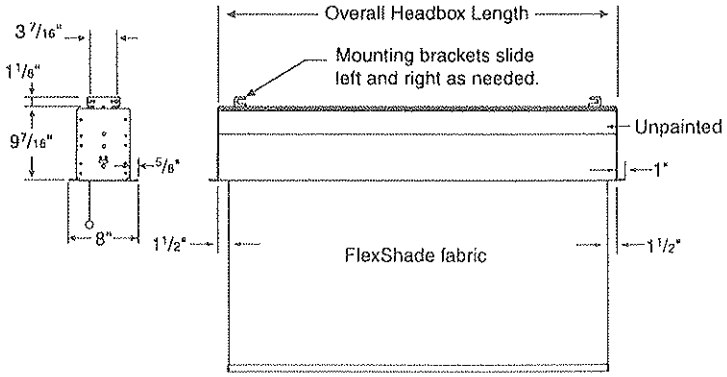


U.S. Patents 5,341,241 and 6,421,175. Other patents pending.

Ultimate Access FlexShade.



Note: Side channels are not available. Ceiling tile flange is included, ⅝" wide, along the front, back and endcaps of the case.



Motorized FlexShade

The simplicity of shades with the versatility of motorized operation.

Motorized FlexShades by Draper offer the ultimate in high-tech convenience in a functional shading system. Choose from a wide range of attractive, light-filtering and light-blocking fabrics (pages 17-24) to enhance a building's energy efficiency. Draper's Motorized FlexShades offer the most intelligent sun control solutions.

Motorized FlexShades are available in any size from 2′ through 14′ wide. Larger sizes are available with FlexShade 2 or Colossal FlexShade (pages 7 and 8).

Motorized FlexShades retract completely when not in use for an unobstructed view. Installation choices range from simple mounting brackets, to endcaps and fascia, to complete extruded pockets with bottom closure panels. Up to five Motorized FlexShades can even be coupled to reduce the number of motors required. Hardware descriptions are found on page 16.

Motorized FlexShades have compact, tubular gearmotors located within each roller for smooth, reliable operation. Depending on size, battens may be used to assure a smoother, flatter surface. A simple wall switch is included with each motorized unit. Or choose one of the most versatile motor control systems: IntelliFlex® gives you total flexibility in how you group, sub-group or individually control your shades. See page 3 for a complete description of control options.

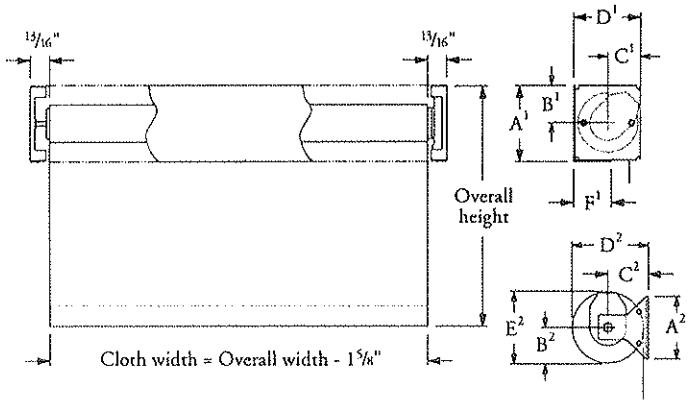
Coupled Motorized FlexShades with SW2600 fabric at the new home of Alvin Ailey American Dance Theater—The Joan Weill Center for Dance. Architects: Iu + Bibliowicz Architects LLP. Photography: © 2005 Bruce Katz. All located in New York, NY.

Motors are installed on the right-hand side as standard. They may be specified on the left.

Quiet Motors

Quiet Motors are now available from Draper for those installations where a quiet environment is a must. These high voltage motors run noticeably more quietly than standard motors, and do not have an audible "click" at start or stop. Please contact Draper for more information and restrictions.

Motorized FlexShade Dimensions



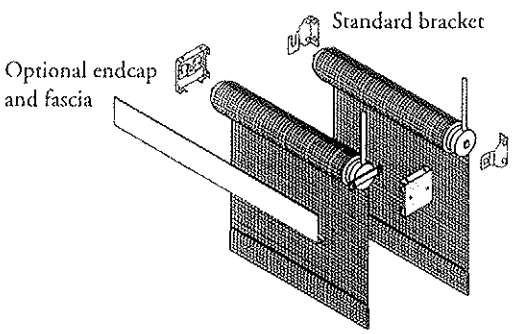
	Headbox/Endcaps or Fascia/Endcaps			*Standard Brackets*	
	Small	Large		Small	Large
A^1	3⅞″	4⅝″	A^2	2½″	3¼″
B^1	1 15/16″	2¼″	B^2	1⅜″	2″
C^1	1 11/16″	2 5/16″	C^2	1⅝″	2 5/16″
D^1	3⅜″	4⅝″	D^2	3″	4¼″
F^1	2⅛″	2⅝″	E^2	3 1/16″	4″

Maximum bundle diameter dictates the size of headbox with endcaps, fascia with endcaps, and standard brackets, which is governed by the size of shade and choice of fabric. Consult Draper to determine which size is required for your installation. Hardware details shown on page 16.

Fabrics

Fabric selection is illustrated on pp. 17-23.

- *1260, 1277 & 1309*
- *Colony*
- *"E", "M" & "T" Screen*
- *Flocké*
- *Obion*
- *Roc-rol™*
- *Screen Nature*
- *Screen Vision & Screen²*
- *SheerWeave® Series PW3500/4100/4400*
- *SheerWeave® Series PW4800*
- *SheerWeave® Series SW2000/SW2100*
- *SheerWeave® Series SW2400/2600/2900*
- *SheerWeave® Series SW3000*
- *SheerWeave® Series SW5000*
- *SheerWeave® Series SW7000/SW7100*
- *Soltis® 99*
- *SunBloc Series SB9000/9100*



FlexShade 2

Motorized window shades with your choice of hardware styles and colors.

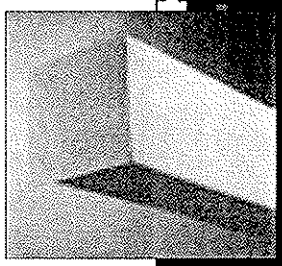
FlexShade 2 by Draper offers intermediate sized shades, between Motorized FlexShade and Colossal FlexShade. FlexShade 2 is available in sizes 3′ to 16′ wide and up to 30′ tall, depending on the fabric chosen.

The FlexShade 2 features a spring loaded idler end for easy installation. Battens are used to ensure the flattest surface possible. Interchangeable ceiling/wall mounting brackets are standard. Optional fascia or headbox, either curved or squared, attaches to matching endcaps. Curved or squared fascia and headbox are available in five colors: clear anodized (standard), white, ivory, black and bronze.

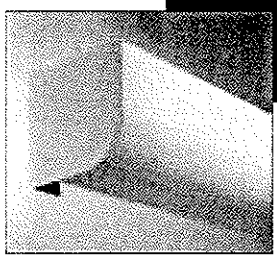
Choose from a wide range of attractive, light-filtering and light-blocking fabrics to enhance a building's energy efficiency. A simple wall switch is included with each unit, or see page 3 for a complete description of control options.

Fabrics—Fabric selection illustrated on pp. 17-24.

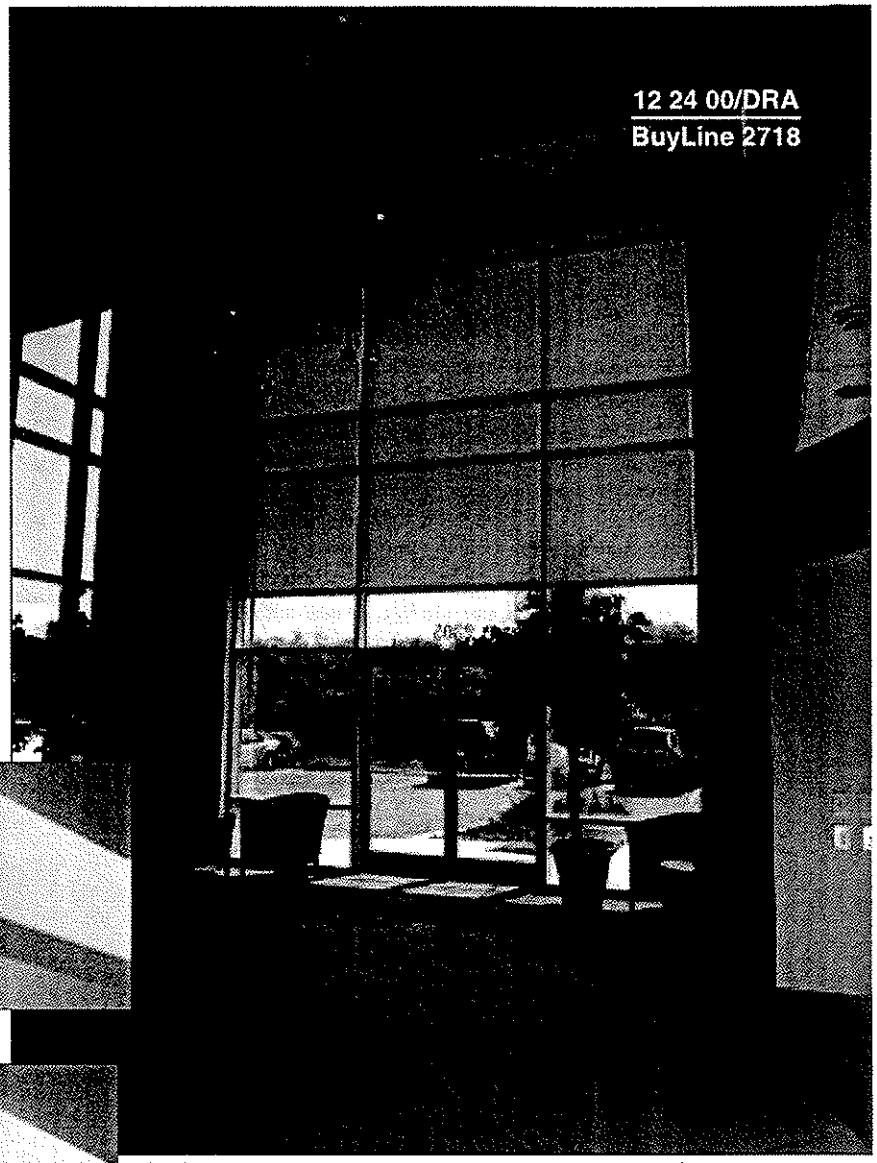
- *1260, 1277 & 1309*
- *Colony*
- *"E", "M" & "T" Screen*
- *Obion*
- *Roc-rol™*
- *Screen Nature*
- *Screen Vision & Screen²*
- *SheerWeave® Series PW3500/4100/4400*
- *SheerWeave® Series PW4800*
- *SheerWeave® Series SW2000/SW2100*
- *SheerWeave® Series SW2400/2600/2900*
- *SheerWeave® Series SW3000*
- *SheerWeave® Series SW5000*
- *SheerWeave® Series SW7100*
- *Soltis® 99*
- *SunBloc Series SB9000/9100*



Squared fascia



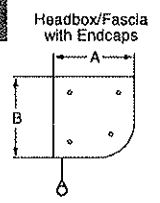
Curved fascia

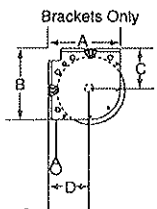


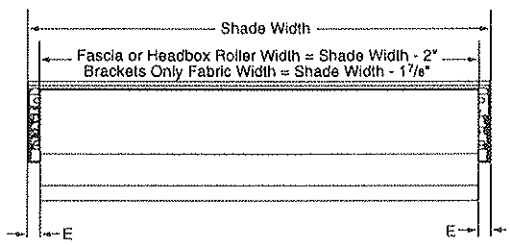
FlexShade 2 at Neace Lukens. Design/Installation: Best Blind & Shade. Photography: © 2005 Kenneth Hayden. All of Louisville, KY. Motors are installed on the right-hand side as standard. They may be specified on the left.

FlexShade 2 Dimensions

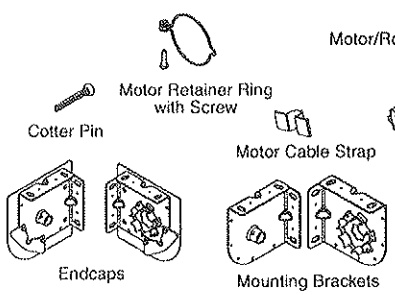
	Headbox with Endcaps	Fascia with Endcaps	Brackets Only
A	6⅝″	6½″	5⁷⁄₁₆″
B	6⅝″	6½″	5⁷⁄₁₆″
C	N/A	N/A	3¼″
D	N/A	N/A	3¼″
E	1″	1″	1⁵⁄₁₆″

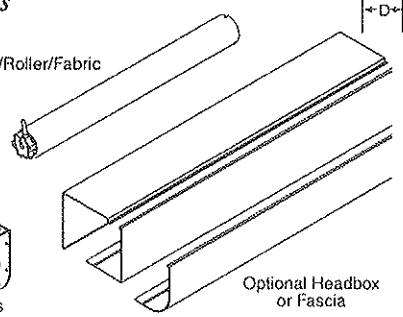




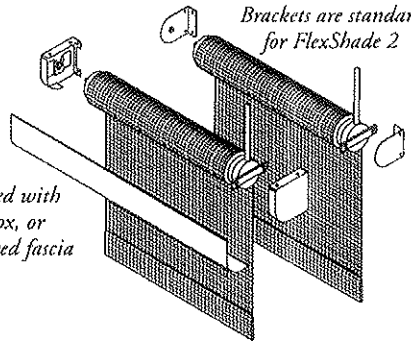


FlexShade 2 Hardware/Parts





Endcaps supplied with optional headbox, or squared or curved fascia



Brackets are standard for FlexShade 2

Colossal FlexShade

Superior solar control for large window openings.

Draper's Colossal FlexShade is one of the largest motorized window shades on the market today. Available in sizes 3′ to 28′9″ wide and 30′ tall. Depending on fabric, larger sizes may be available, and narrower shades can be fabricated up to 35′ tall. Battens are used to assure a smoother, flatter surface.

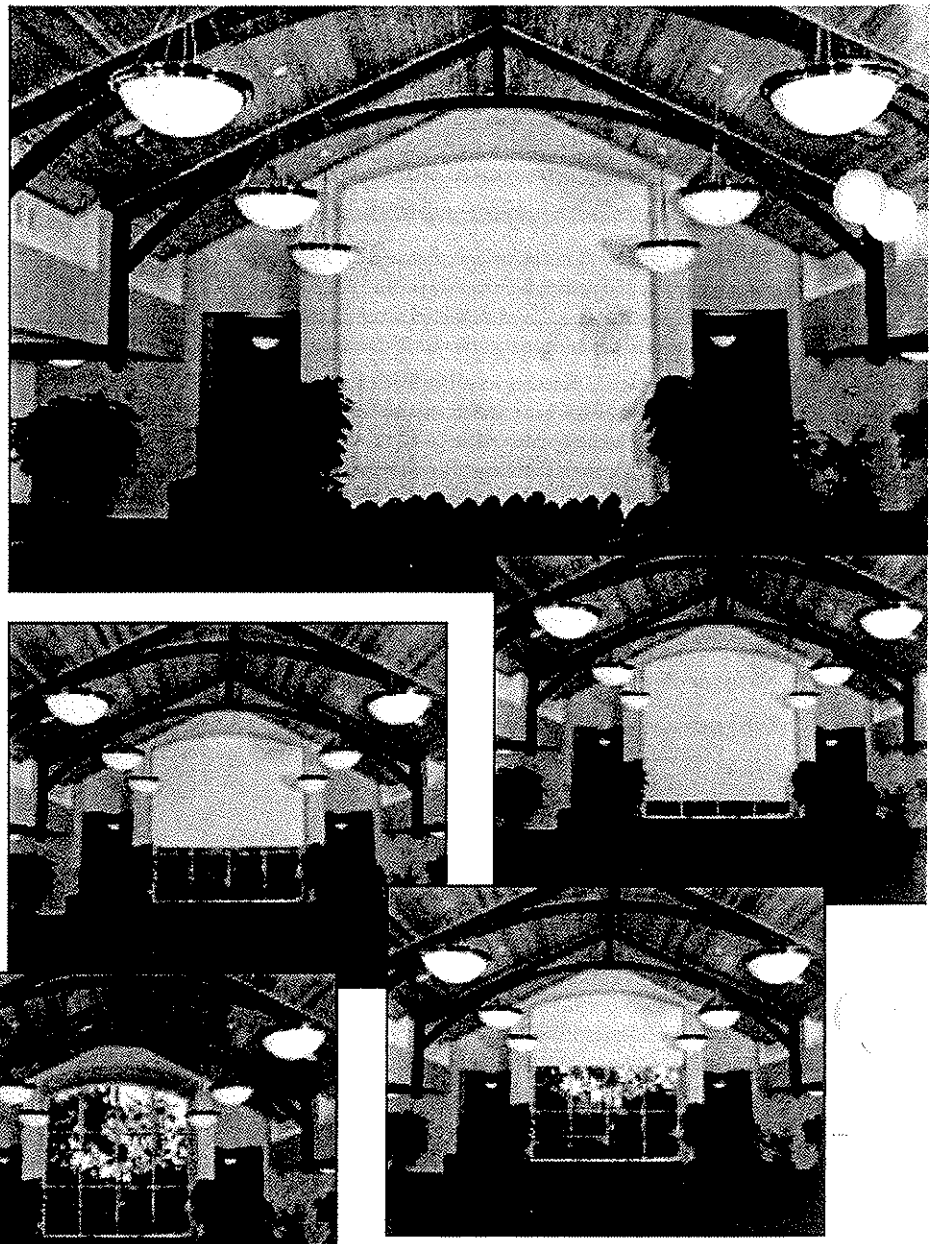
Colossal FlexShade comes in its own housing, ready to install. Eyebolts for hoisting the shade are provided at each end of the extruded aluminum case that's finished in white. Our giant shade features a Deflection Compensation System, designed to minimize fullness caused by case deflection in extremely wide units.

Options include an internal junction box, reverse-roll fabric, Wall Mount Bracket Kit, Endcap Ceiling Tile Flange Kit and Ceiling Tile Flange for front of headbox. Standard controls, low voltage controls and IntelliFlex controls available. See page 3 for details.

Fabrics

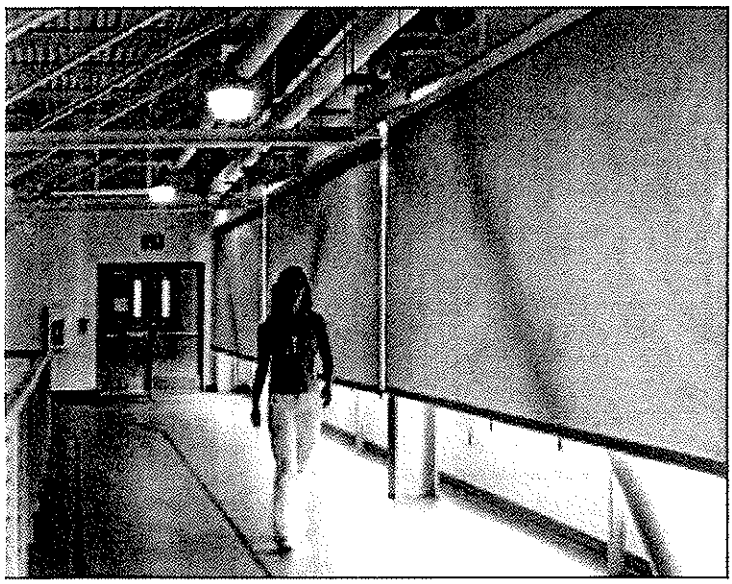
Fabric selection is illustrated on pp. 17-24.

- *Colony*
- *"E", "M" & "T" Screen*
- *Screen Nature*
- *Screen Vision & Screen²*
- *SheerWeave® Series PW3500/4100/4400*
- *SheerWeave® Series PW4800*
- *SheerWeave® Series SW2000/SW2100*
- *SheerWeave® Series SW2400/2600/2900*
- *SheerWeave® Series SW3000*
- *SheerWeave® Series SW5000*
- *SheerWeave® Series SW7100*
- *Soltis® 99*
- *SunBloc Series SB9000/9100*

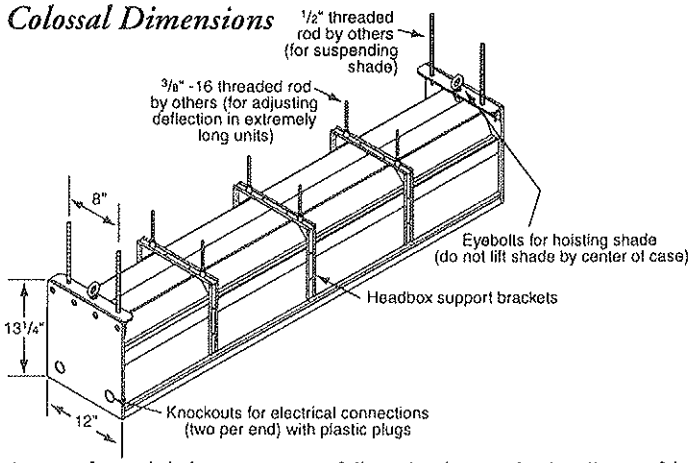


Pictured above: Colossal FlexShades with SB9000 at Florida State University Alumni Association Center. Installation: Architectural Hardware Products. Photography: Bill Lax/FSU Photo Lab. All of Tallahassee, FL.

Pictured below: Colossal FlexShades with SW2000 at Wasilla (AK) Multi-Use Sports Complex. Architect: Kumin Associates, Anchorage, AK. Installation: Carberry & Associates. Photography: © 2005 Robert Baker, North Star Multimedia, Wasilla, AK.



Colossal Dimensions



Bottom of extruded aluminum case is fully enclosed except for slot allowing fabric passage. Bottom closure panel may be removed manually for access to roller and drive unit. Patent pending.

LightBloc FlexShade

For total darkness, specify LightBloc FlexShades. Ideal for audio-visual, conference and training rooms. Precision engineered and custom built for each opening. LightBloc FlexShades may be motorized or manually operated with bead chain clutch, crank or spring roller.

Choose from any of our room-darkening fabrics—a list is located below and to the right. When SB9000 or SB9100 is specified, our exclusive, patented Fabric Retention System prevents disengagement of fabric from the channels.

Durable anodized and painted finishes ensure an aesthetically pleasing installation. All hardware is available with clear anodized (standard), black, white, ivory or charcoal bronze finish.

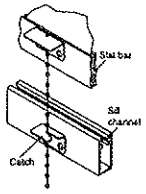
System includes aluminum headbox, side and sill channels. No light gap at the headbox/side channel connection. Headboxes available to recess or surface mount (standard). Internal light seals and opacity plates eliminate all light leaks. Light proof hem bar recessed into light proof side channel. To ensure total blackout, caulking around perimeter is recommended. U.S. Patent No. 5,323,831.

Operating Systems

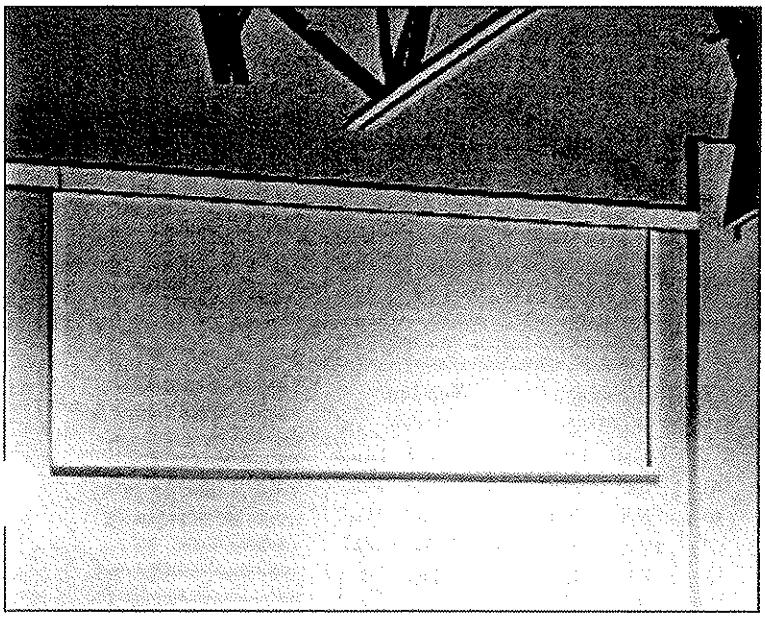
Motorized Operation—Motor is located within the right (standard) or left end of the roller for smooth, reliable operation. A wide variety of control options are available: refer to page 3.

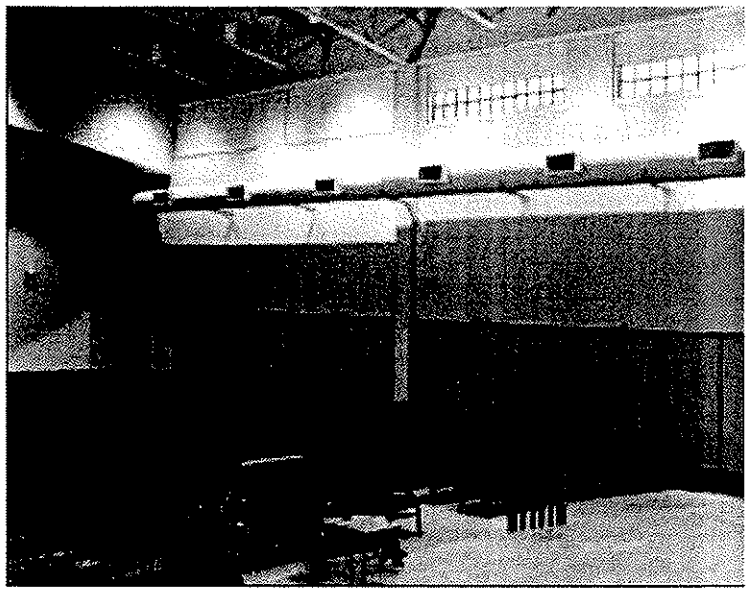
Crank Operator—Even the largest shades operate smoothly. The compact, bi-directional gear assembly can be mounted either on the right end (standard) or the left. Crank handle hinges to form a thin, straight rod at edge of window when not in use. The crank is permanently mounted (standard), or specify detachable and use a single crank for more than one shade.

Bead Chain Clutch—Unlike competitive clutches, the Draper bi-directional clutch never needs adjusting and can be mounted either on the right (standard) or left. Shades stop when chain is released. Stainless steel (standard) or nylon beaded chain hangs at the side, leaving the view unobstructed. An optional chain hold-down is designed to keep children from getting tangled in the cord. Up and down stops prevent shades from being raised or lowered too far. Our Light Seal Kit prevents light from coming through where the chain exits the headbox.



Spring Roller—Galvanized steel rollers and heavy-duty springs sized to operate safely and reliably. Roller is under constant tension, with a latching chain at sill (see detail at right).





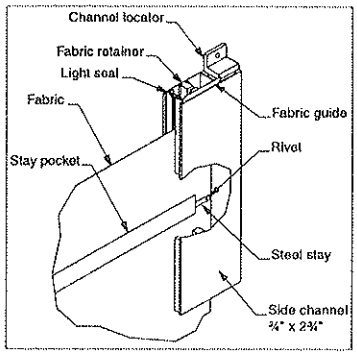
Pictured above and below left: LightBloc FlexShades with SB9000 at St. Stephen Church & Prayer Retreat Center, Jeffersonville, IN. Design/Installation: Best Blind & Shade, Louisville, KY. Photography: © 2005 Kenneth Hayden, Louisville, KY.

Fabrics—Fabric selection is illustrated on pp. 17-24.

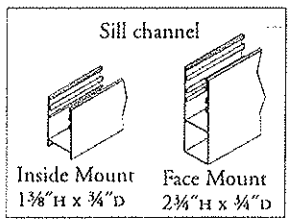
- *1260 & 1309*
- *Flocké*
- *Roc-rol™*
- *SheerWeave® Series SW7000/SW7100*
- *SunBloc Series SB9000/9100*

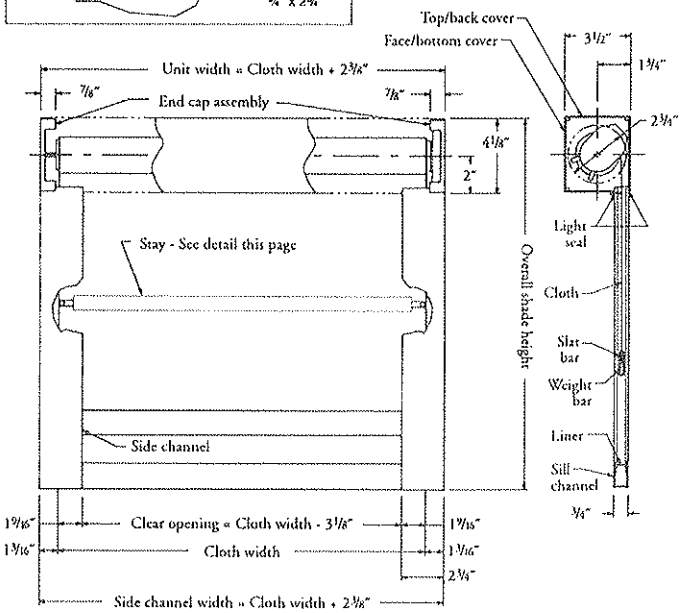
Dimensional Drawings–LightBloc System

Available in sizes through 8' wide x 10' high. Cannot be coupled. *Note: For proper operation, LightBloc units must be installed square and plumb. Installers must be qualified craftsmen.*



Inside mounting of LightBloc requires mounting angle, not shown.





Manual FlexShade

Window treatments with independent control.

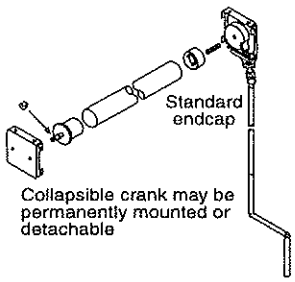
MANUAL FLEXSHADES are a sensible choice for standard window treatments in all buildings. Choose from a wide range of attractive, light-filtering and light-blocking fabrics (pages 17-24) to enhance a building's energy efficiency.

Installation choices range from simple mounting brackets, to endcaps and fascia, to extruded pockets with bottom closure panels and side channels. Refer to hardware on page 16.

Operating Systems

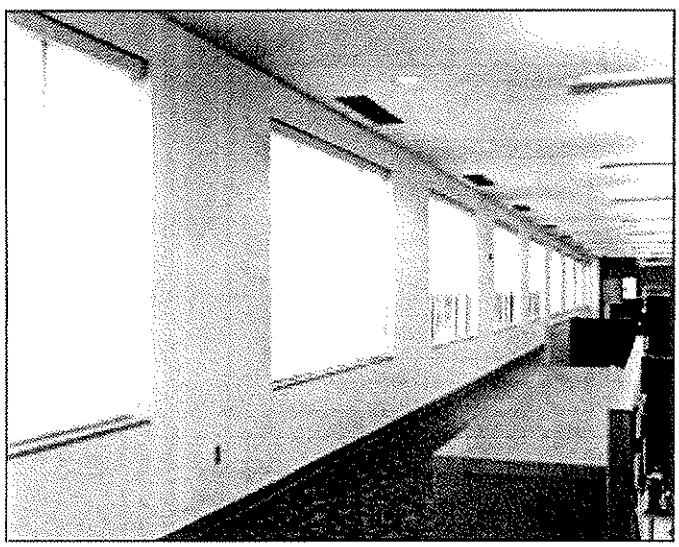
Bead Chain Clutch— Unlike competitive clutches, the DRAPER bi-directional clutch never needs adjusting and can be mounted either on the right (standard) or left. Shades stop when chain is released. Stainless steel (standard) or nylon bead chain hangs at the side, leaving the view unobstructed. An optional chain hold-down is designed to keep children from getting tangled in the cord. Up and down stops prevent shades from being raised or lowered too far. Our spring-loaded idler and universal brackets offer installation ease and flexibility. Optional SPRING ASSIST available. (Large units require fixed-pin idler.)

Crank Operator—Crank-operated FLEXSHADES offer complete reliability and precise light control with minimal effort. Even the largest shades operate smoothly. You can easily operate tall shades, wide shades, even groups of shades from a single controller. All shades are raised or lowered to exactly the same height.

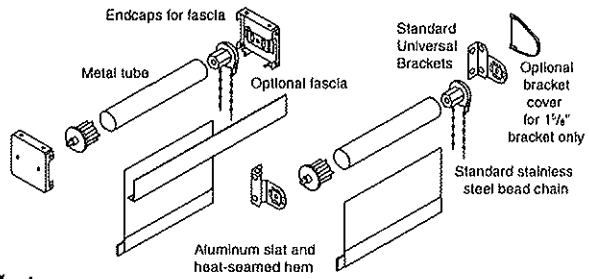


Compact bi-directional gear assembly can be mounted on the right side (standard) or left. Attractive crank handle hinges to form a thin, straight rod at edge of window when not in use. Crank operator can be permanently mounted (standard) or detachable; up to 6′ in length. Optional heavy-duty crank is available in lengths to 10′. Two-piece handle is available in greater lengths. In public areas, a detachable operator prevents unauthorized persons from operating the shades. Crank-operated shades are furnished with endcaps.

Pictured below: Clutch-operated FlexShades with "E" Screen 10% at Citigroup. Installation: Best Blind & Shade. Photography: © 2005 Kenneth Hayden. All of Louisville, KY.



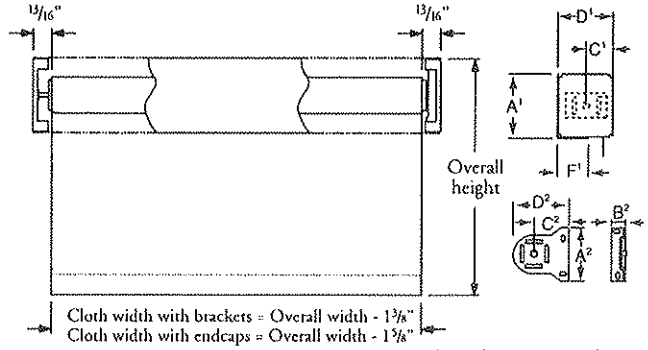
Coupled, crank-operated FlexShades with Screen² 10% at North Park Branch Library, Evansville, IN. Installation: Spindletop Draperies, Louisville, KY. Photography: Barry Rustin, Evanston, IL.



Fabrics—Fabric selection is illustrated on pp. 17-24.

- *1260, 1277 & 1309*
- *Colony*
- *"E", "M" & "T" Screen*
- *Flocké & Obion*
- *Roc-rol™*
- *Screen Nature*
- *Screen Vision & Screen²*
- *Soltis® 99*
- *SheerWeave® Series PW3500/4100/4400*
- *SheerWeave® Series PW4800*
- *SheerWeave® Series SW2000/SW2100*
- *SheerWeave® Series SW2400/2600/2900*
- *SheerWeave® Series SW3000*
- *SheerWeave® Series SW5000*
- *SheerWeave® Series SW7000/7100*
- *SunBloc Series SB9000/9100*

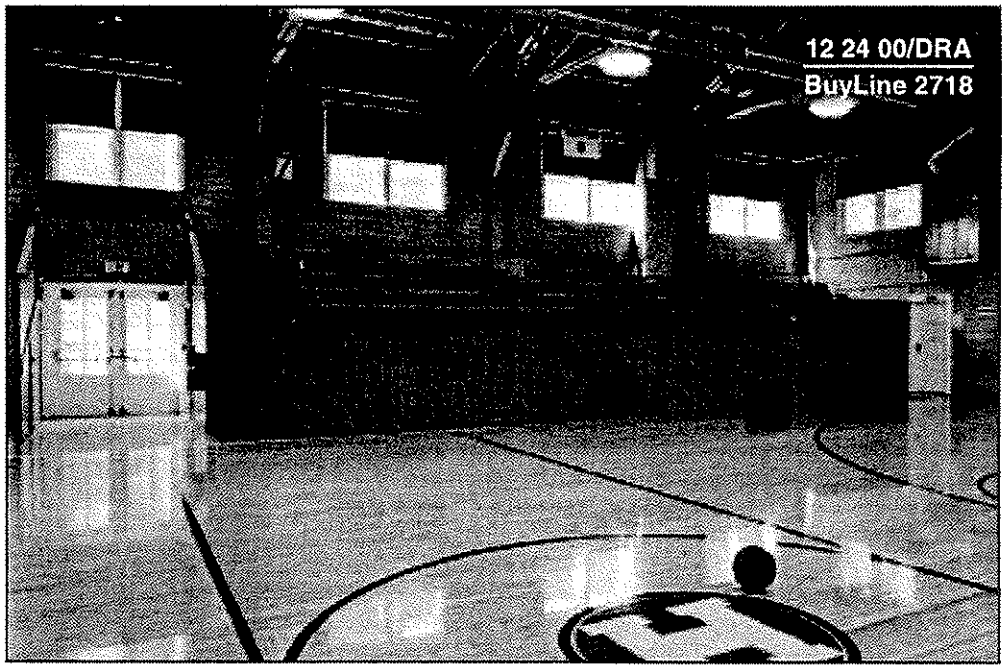
Manual FlexShade Dimensions



	Headbox/Endcaps or Fascia/Endcaps			*Standard Brackets*	
	Small	Large		Small	Large
A¹	3⅞"	4⅝"	A²	2³⁄₁₆"	2³⁄₁₆"
B¹	NA	NA	B²	1¹⁄₁₆"	1¹⁄₁₆"
C¹	1¹¹⁄₁₆"	2⁵⁄₁₆"	C²	1⅝"	2¼"
D¹	3⅜"	4⅝"	D²	2⅜"	3"
F¹	2⅜"	2⅜"	—	—	—

Consult Draper to determine which endcap or bracket size is required for your installation. These dimensions are accurate for all manually operated shades. See additional headbox and fascia details on page 16.

Spring-Roller Shade



Spring-Roller Shades with SB9000 at the Hoosier Gym, home court location for the movie "Hoosiers", Knightstown, IN. Installation: Fred Mann, New Castle, IN. Photography: Wayne Williams, Indianapolis, IN.

Simplicity of design, durable materials and careful workmanship make DRAPER SPRING-ROLLER SHADES America's first choice for institutional-quality light control and room darkening shades.

SPRING-ROLLER SHADES are designed specifically for institutional use and manufactured to endure the toughest conditions. DRAPER shades are custom made to fit your windows and individually tested before shipment to make sure they operate perfectly.

SPRING-ROLLER SHADES are offered in a wide range of room darkening and woven mesh fabrics. See pages 17-24.

Features of Operating System

Spring Roller

Traditional window shade operation. Metal rollers and heavy-duty springs operate any shade through 12′ wide x 12′ high.

Large Diameter Institutional Metal Rollers

All shades are mounted on rigid steel rollers that house heavy-duty springs. Our ball-bearing style locking mechanism operates more smoothly than other devices on the market. Spring mechanism can be replaced easily in the field.

Heavy-Duty Cadmium-Plated Hardware

Heavy plated steel hardware, complete with all necessary fasteners.

Fabric Attachment

Fabric is attached to roller with 3M VHB industrial adhesive, designed to withstand high temperatures and moisture. Adhesive attachment is stronger than mechanical methods and maximizes surface flatness.

Heat Seamed

Hems are heat seamed for added strength. Prevents hems from raveling and tearing. Optional double-needle stitching provides the strongest sewn hem available.

#4½ Large Size Cord

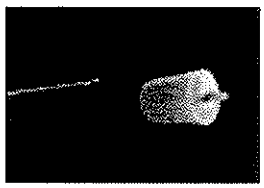
Hard braided large diameter cotton cord, attached to slat with screweye and cord clasp. Screweye doesn't weaken slat like punched eyelet holes used on shades of lesser quality.

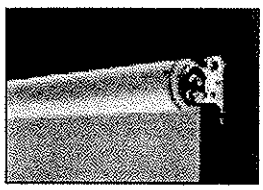
Kiln-Dried Hard Maple Slats

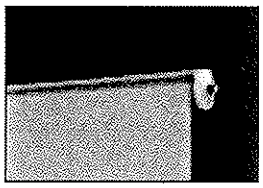
Indiana hard rock maple, ⅞", 1¼" or 1½", at our discretion. Ten times stronger than pine slats. No "finger joints".

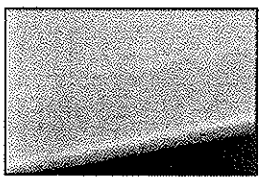
Each Shade Individually Tested

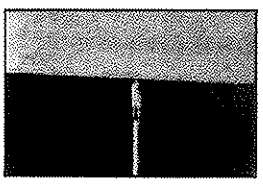
Every DRAPER shade is individually tested before shipment for perfect operation.

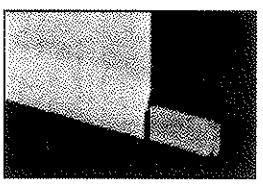


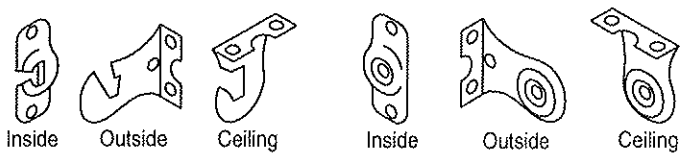


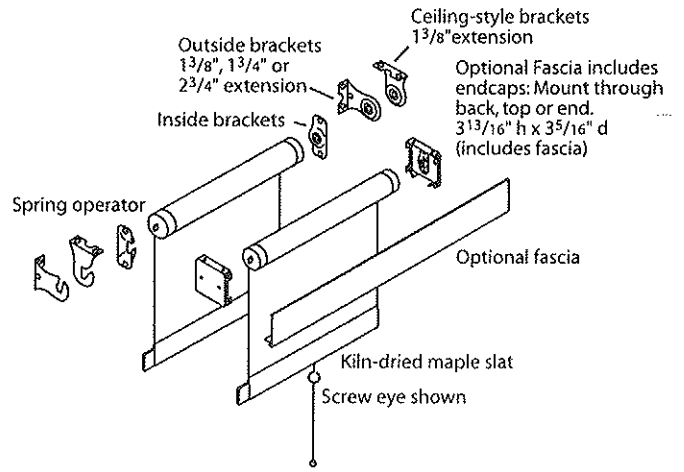












Fabrics

Fabric selection is illustrated on pp. 17-24.

- *Colony*
- *"E", "M" & "T" Screen*
- *Flocké*
- *Screen Vision & Screen²*
- *1260 & 1277*
- *Obion*
- *Roc-rol™*
- *Screen Nature*
- *SheerWeave® Series PW3500/4100/4400*
- *SheerWeave® Series PW4800*
- *SheerWeave® Series SW2000/SW2100*
- *SheerWeave® Series SW2400/2600/2900*
- *SheerWeave® Series SW3000*
- *SheerWeave® Series SW5000*
- *SheerWeave® Series SW7000/SW7100*
- *Soltis® 99*
- *SunBloc Series SB9000/9100*

Skylight FlexShade

Reliable and easy to install.

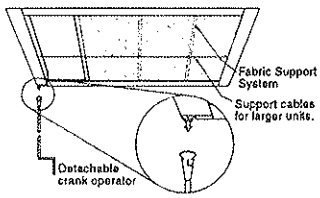
An unprotected skylight can generate intense heat and glare. Skylight FlexShades are the ideal remedy. Inconspicuously recessed into the skylight opening, a Skylight FlexShade provides sunlight and UV control to protect people and furnishings. Two operating systems are detailed below: motorized Skylight FlexShades are available in sizes up to 12′ x 12′. Crank-operated Skylight FlexShades are available up to 8′ x 12′. Skylight FlexShades can be installed at any angle as long as the rollers are parallel to the floor.

Select a mesh fabric for light filtration or SunBloc for complete opacity. Five choices of hardware finishes: clear anodized (standard), black, white, ivory or bronze enamel. Draper recommends lighter color fabrics and hardware to absorb less heat. Venting space between shade and glass recommended.

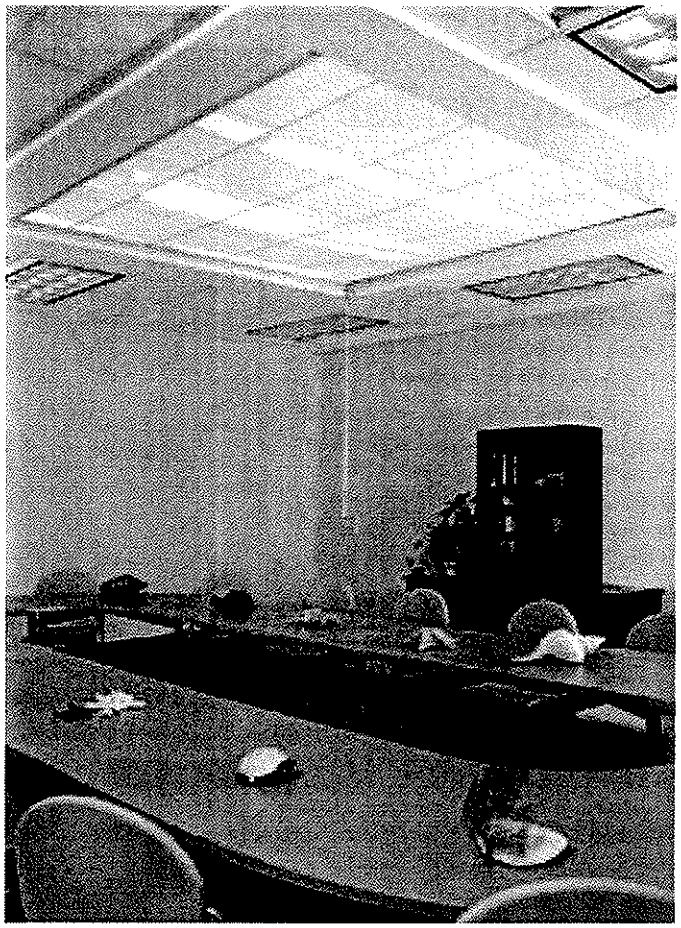
Operating Systems

Motorized Operation—Are your skylights inaccessible? Specify motorized Skylight FlexShades. Unlike competitive products, Draper Skylight FlexShades only use one motor because the spring roller opposite the electric motor maintains constant tension. This feature makes installation easier. Roller boxes and side flanges can be recessed into the skylight opening. Perimeter support angles simplify installation. Side flanges prevent direct light leaks. A variety of control systems are available for motorized Skylight FlexShades: refer to page 3.

Crank Operator—Manually operate easy-to-reach skylights with a gearbox/detachable crank combo. Available in sizes through 8′ x 12′. Specify length of crank required (up to 6′ in standard configuration; heavy-duty crank available to 10′ long). Bell-shaped connector makes crank easy to attach. Spring roller opposite crank maintains constant tension.

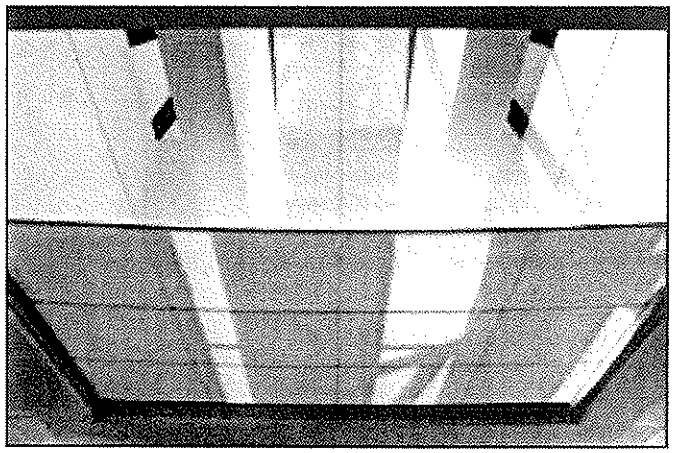


Due to the force of gravity, Skylight FlexShades are available to a maximum unsupported width of 42″. Larger units require one or more support cables, up to a maximum of 12′ wide x 12′ long. Cables are 3/16″ dia. vinyl clad aircraft cable. Units over 8′ wide must be motorized, inside mount, with 4 5/8″ x 4 5/8″ headbox and 2 1/4″ dia. spring roller.



Skylight FlexShade with "E" Screen 5% at Lawrence North High School. Installation: SPD Textile & Drapery, Inc. Photography: Brian Bookwalter. All of Indianapolis, IN. Shown closed above, partially open below.

Note: To facilitate proper operation, Skylight FlexShades must be installed square and with rollers level. Installers must be qualified craftsmen.



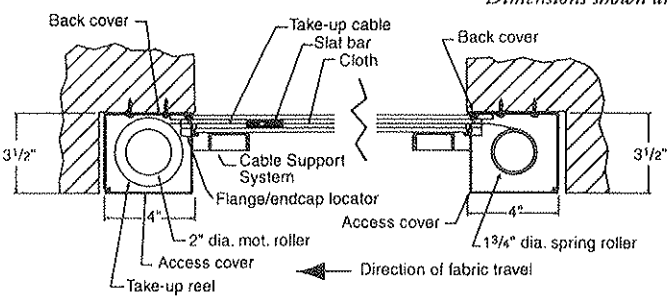
Fabrics Fabric selection is illustrated on pp. 17-24.

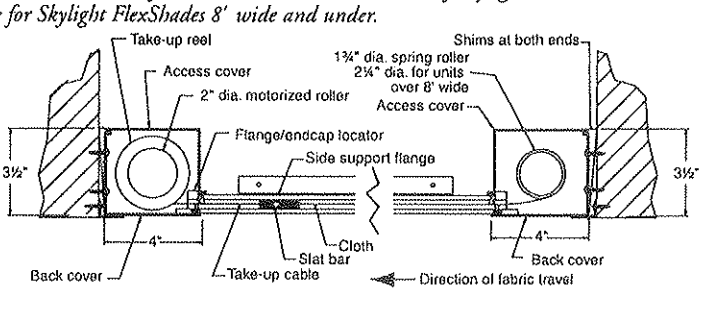
- *Colony*
- *"E", "M" & "T" Screen*
- *Screen Nature*
- *Screen Vision & Screen²*
- *Soltis® 99*
- *SheerWeave® Series SW2000/SW2100*
- *SheerWeave® Series SW2400/2600/2900*
- *SheerWeave® Series SW3000*
- *SheerWeave® Series SW7100*
- *SunBloc Series SB9000/9100*
- *SheerWeave® Series PW3500/4100/4400*

Dimensions & Installation

Complete details available at www.draperinc.com

Recess all components into the skylight opening (below right). With outside mount installation (at left), separate header bars must be attached at both ends to house the support cable system. With outside installation, fabric stay pockets are visible from inside the room on all sizes of Skylight FlexShades. Dimensions shown are for Skylight FlexShades 8′ wide and under.





FlexShade Panels

FlexShade fixed frame panels provide sunlight filtration at a lower cost than operable solutions. They are particularly well suited for skylights and sloped glazing in solariums or odd-shaped openings. (Not suitable for curved framing).

Use FlexShade Panels to help prevent ultraviolet damage to expensive textiles and furniture located in direct sunlight. Relieve the discomfort from solar heat and glare often associated with unprotected glazing. Choose a fabric from the list below (fabric details on pages 17-24). A wide range of openness factors are available, ranging from 3% to 23%.

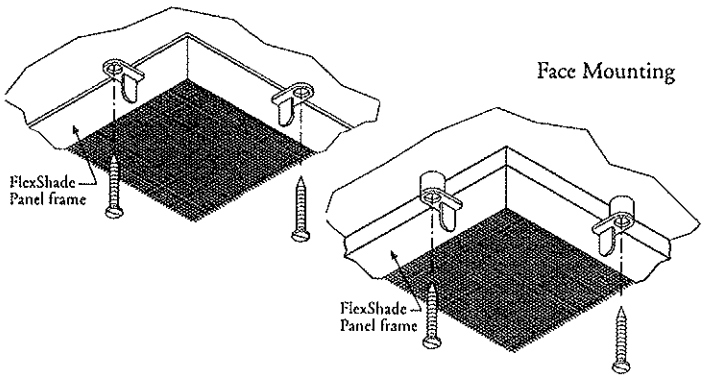
FlexShade Panels are permanently attached to lightweight aluminum frames. Heavy-duty fixed panels utilize an extruded aluminum frame. Frames are available in dark bronze, white or mill finish aluminum (standard). Panels mount easily on surface or within framing of windows with clips (see details below). Clips allow removal of FlexShade Panels for routine maintenance and cleaning.

Available in sizes up to 5′ x 10′. Panels exceeding 40″ in length require a center support member.

Installation of Interior Panels

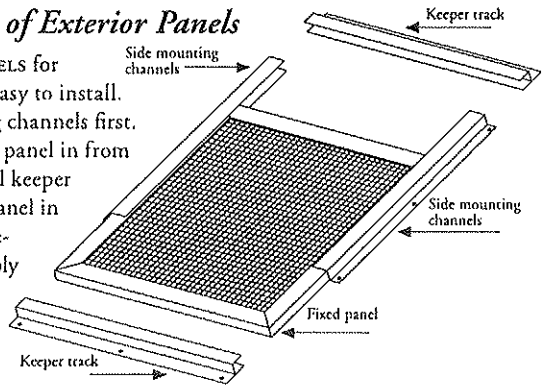
Inside Mounting

Face Mounting



Installation of Exterior Panels

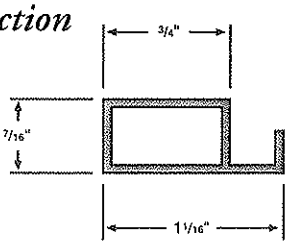
FlexShade Panels for exterior use are easy to install. Install mounting channels first. Then, slide fixed panel in from lower end. Install keeper track to secure panel in frame. At maintenance time, simply remove the bottom keeper, and slide out the fixed panel.



FlexShade Panels with SheerWeave® PW4100 at Riverdale Branch, New York Public Library. Architect: Prendergast Laurel Architects. Installation: JDR Windows. Photography: ©2005 Bruce Katz. All of New York, NY.

Typical frame cross-section

Dimensions and details may vary. Frame components at manufacturer's discretion.



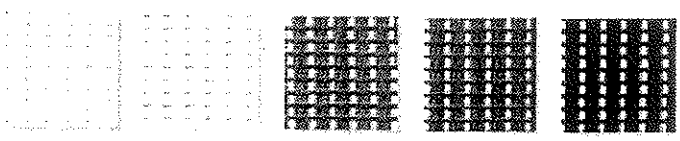
Fabrics

Fabric selection is illustrated on pp. 17-24.

- *"E", "M" & "T" Screen*
- *Screen Vision & Screen²*
- *Soltis® 99*
- *Screen Nature*
- *SunScreen® Series SW1000*
- *SheerWeave® Series SW2000/SW2100*
- *SheerWeave® Series SW2400/2600/2900*
- *SheerWeave® Series SW3000*
- *SheerWeave® Series PW3500/4100/4400*

SunScreen® SW1000 by Phifer—

For reducing solar heat gain in the summer and heat loss in the winter. SunScreen® may be installed on the exterior or interior of glass areas. SW1000 is a vinyl-coated fiberglass, woven in a ribbed pattern. Virtually maintenance free—non-combustible and will not rust, corrode, shrink, scratch or stain. Approximate openness factor of 23%. Up to 84″ roll width. 8.5 oz./sq. yd., .019″ thick. Available in five colors.



White	Antique White	Silver Grey	Bronze	Charcoal
SW1005	SW1010	SW1020	SW1030	SW1060

Roman FlexShades

Roman FlexShades provide an elegant, softer alternative to traditional roller shades, blinds and draperies. Perfect for spaces requiring a "custom" look.

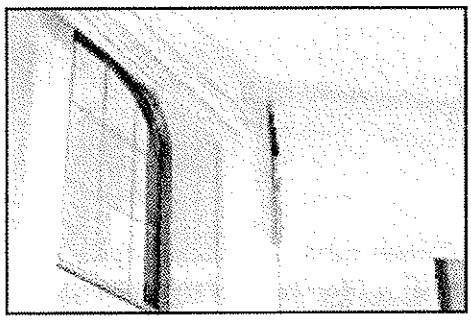
Valance (included) completely conceals the operating mechanism. The award-winning Rollease No-Sew™ System means there are no visible stitches in the fabric—clearly superior to any other method of attaching slats.

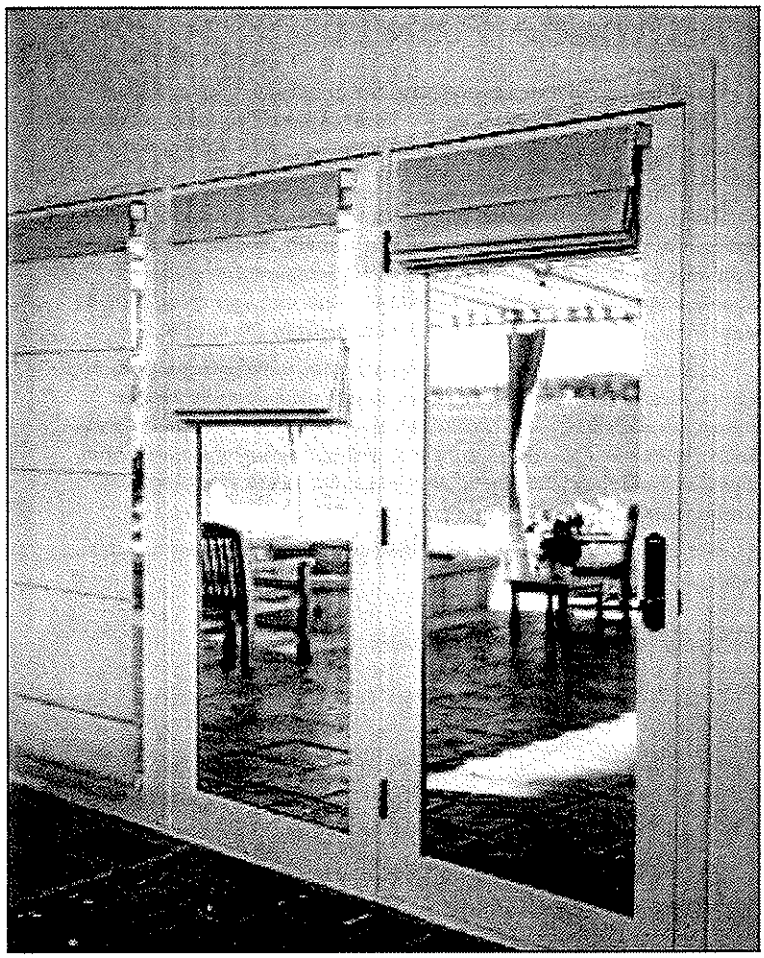
Choose a soft, gently draping textile with complete opacity, or select from our wide variety of light-filtering woven mesh fabrics. Available in a broad range of sizes, for small windows or wide expanses. May be installed inside or outside the opening.

Operating Systems

Motorized Operation—For maximum reliability and convenience. Motor is located inside the right (standard) or left end of the roller. 115 volt tubular gearmotor easily interfaces with a variety of control systems (details on page 3).

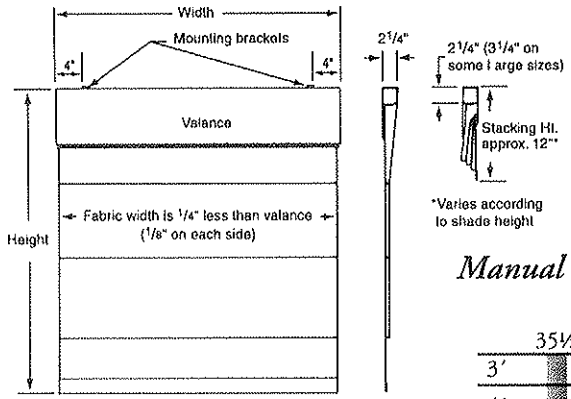
Clutch—Draper's clutch system operates approximately five times faster than competitive systems. The clutch never needs adjusting and can be mounted either right (standard) or left, as preferred. Stainless steel bead chain is standard.



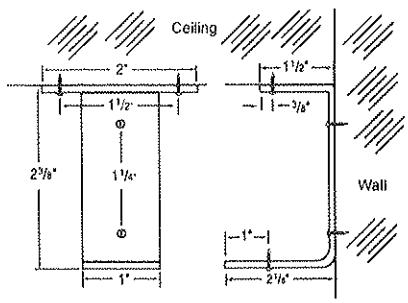


Above: Roman FlexShades. Light filtering fabric is SheerWeave® by Phifer, color SW2100 White/Platinum, 10% open. Installation by Tom Stuckey, Window Watchers, Fort Wayne, IN. Photography by Jeff Bell, Fort Wayne, IN.

Motorized Roman FlexShade



Mounting Bracket



Fabrics

Fabric selection is illustrated on pp. 17-24.

- *"E", "M" & "T" Screen*
- *Roc-Rol™*
- *Colony*
- *Screen Vision & Screen²*
- *SheerWeave® Series SW2000/SW2100*
- *SheerWeave® Series SW2400/2600/2900*
- *SheerWeave® Series SW3000*
- *Soltis® 99*

Manual Roman FlexShade Sizes

Width

Height	35½"	4′	5′	71"	7′	8′	9′	10′
3′								
4′								
5′								
6′								
7′								
8′								
9′								
10′								
11′								
12′								

Motorized Roman FlexShade Sizes

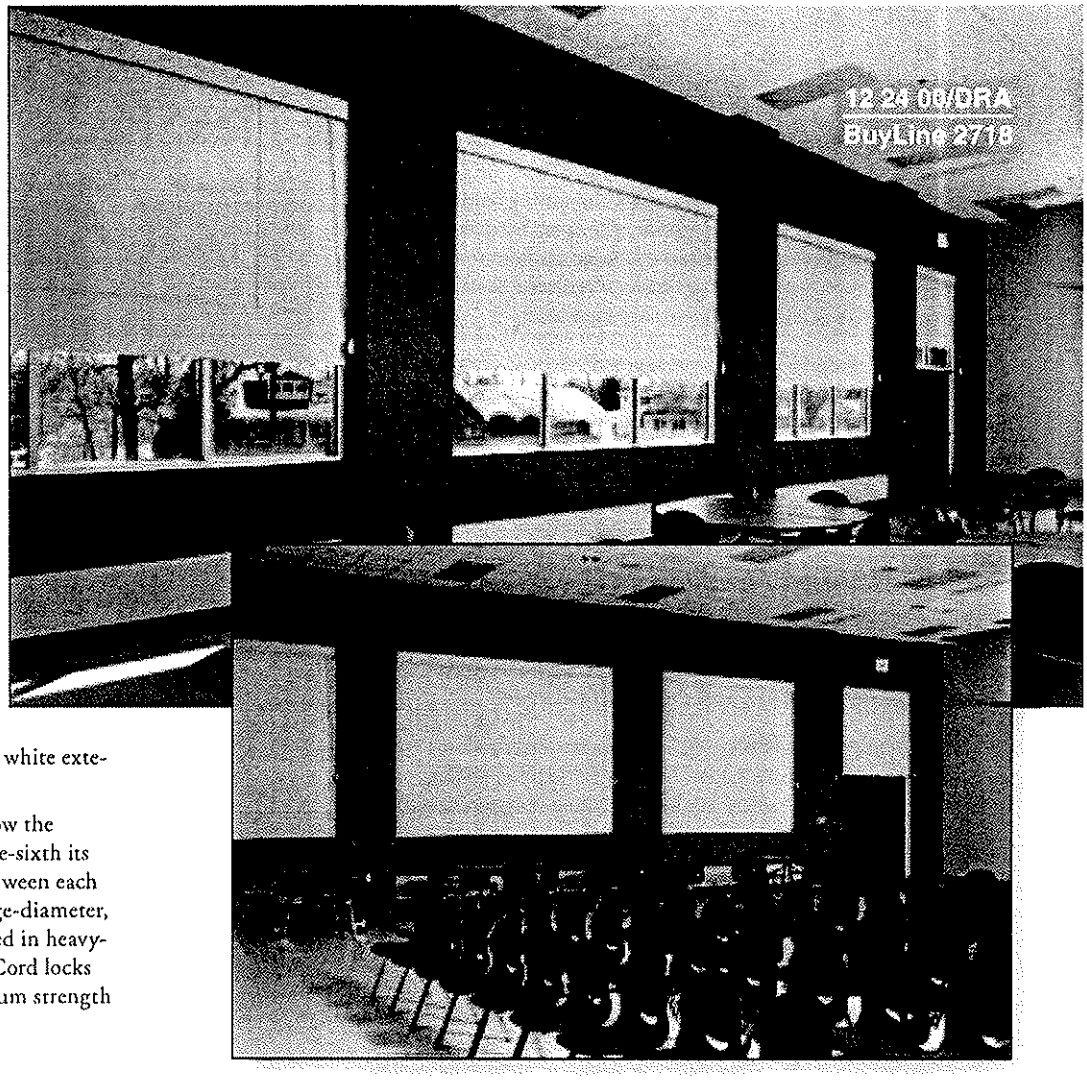
Width

Height	2′	3′	4′	5′	6′	7′	8′	9′	10′	11′	12′
3′											
4′											
5′											
6′											
7′											
8′											
9′											
10′											
11′											
12′											

Larger sizes available in both manual and motorized Roman FlexShades, depending on fabric: contact Draper.

Snugfold

The folding window shade.



SNUGFOLD shades are designed to cover large glass areas such as those found in classrooms, cafeterias, and gymnasiums.

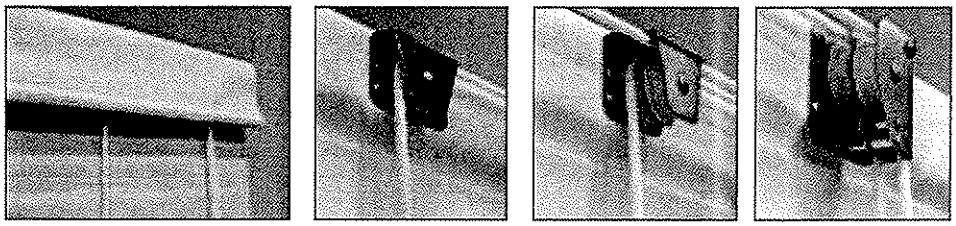
The SNUGFOLD folds and unfolds smoothly and easily by means of a simple and reliable cord and pulley system. Cord locks enable shade to be stopped at any point. Color-coordinated #7½ cords. Permanently attached matching valance conceals hardware.

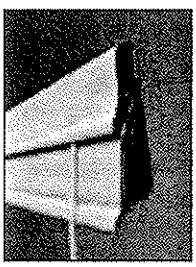
Simplicity of design and quality components make the SNUGFOLD an economical and practical way to darken multiple window openings. Only manufactured with COLONY fabric (below). COLONY is available in 12 attractive interior colors, with a uniform white exterior. Sizes through 15′ wide x 12′ high.

Three intermediate maple slats allow the SNUGFOLD to fold to approximately one-sixth its total height. Steel stays are midway between each slat to keep folds smooth and flat. Large-diameter, self-lubricating nylon pulleys are housed in heavy-gauge, brass-tone plated steel frames. Cord locks are integral to pulley frame for maximum strength and ease of operation.

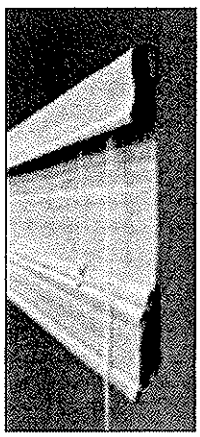
Above: Snugfolds installed at Test Middle School, Richmond, IN. Installation: Fred Mann, New Castle, IN. Photography: Wayne Williams, Indianapolis, IN.

At right: Normally hidden by the valance, three nylon marine pulleys with automatic cord lock control the operation.

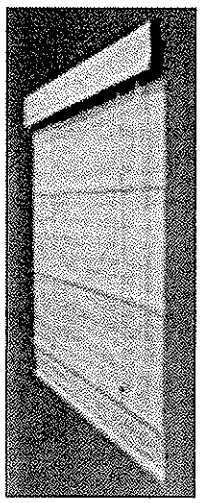




Snugfold in fully up position stacks in approximately one-sixth of its original height.



Snugfold in the intermediate position.



Snugfold in the down position.

Colony (CL8000)—Close woven fiberglass base textile with sun-resistant vinyl film securely bonded to each side. Opacity is 90%. Resists fading, mildew and flame; washable and tear proof. COLONY is available in 12 interior colors, with a uniform white exterior. Also available, but not shown—CL8010 White and CL8080 Black. Up to 72″ roll width in most colors. Meets NFPA-701 fire retardant standards.

Putty CL8020	Champagne CL8025	Wheat CL8030	Beige CL8035	Dove Grey CL8040
Cobalt CL8050	Navy Blue CL8055	Forest CL8060	Chocolate CL8070	Burgundy CL8075

Hardware for FlexShades

Mounting Brackets—The standard mounting hardware supplied for wall, ceiling or jamb installation of DRAPER MOTORIZED and MANUAL FLEXSHADES is a pair of brackets. As an option for a pair of 1⅝" brackets, white bracket covers are available. If optional fascia or headbox is specified, then endcaps, not brackets, are supplied.

Fascia—As an option for MOTORIZED and MANUAL FLEXSHADES, extruded fascia hides hardware and roller. May be mounted inside or outside of jamb using matching endcaps. Available in clear anodized finish (standard), black, white, ivory, or charcoal bronze. 3⅞" or 4⅝" high as required (consult DRAPER to determine fascia size required for your installation). Printed color at right may vary from actual aluminum. Color samples available upon request.

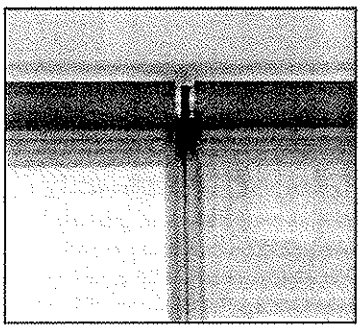
Surface-Mounted Headbox—Complete extruded headbox is available to hide hardware and roller as an option for MOTORIZED and MANUAL FLEXSHADES. Two-piece assembly is suitable for surface mount to head, jamb or wall, in sizes 3⅞" high or 4⅝" high as required (consult DRAPER to determine size required for your installation).

Pocket-Style Headbox—Complete extruded headbox is available for ceiling recessed installation. In sizes 3⅞" high or 4⅝" high as required (consult DRAPER to determine size required for your installation).

Wall Clip with Closure—Pocket already exists? Specify FLEXSHADE Wall Clip with a long or short closure. Wall Clip mounts to the wall and bottom closure panel drops neatly into place without fasteners, leaving a minimal slot through which the shade descends. For sleek appearance, use continuous wall clip. Closure sizes 1¾" or 3".

Couplers—DRAPER'S FLEXSHADE COUPLING SYSTEM lets one motor drive up to four additional shade rollers, or a crank operator may drive two additional rollers. The advantages are apparent: reduce the number of operators required, and you reduce the cost of the project and simplify the electrical portion of the contract.

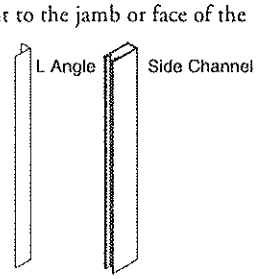
The shades coupled together may be of different widths. Coupled shades must be same height. The overall width of a motorized group may not exceed 30'; crank-operated groups may be up to 20' wide.



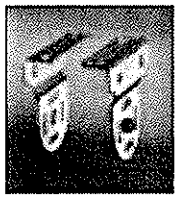
© 2005 Bruce Katz

COUPLERS fits 2" diameter rollers. Brackets extend 2½" from mounting surface to center line of roller, and may be wall or ceiling mounted. Ideally, install FLEXSHADE COUPLING SYSTEM in DRAPER TYPE D POCKET or existing pocket. Coupled units may also be installed in 3⅞" and 4⅝" DRAPER ceiling pockets. Fascia is available. (Not suitable with LIGHTBLOC FLEXSHADE.)

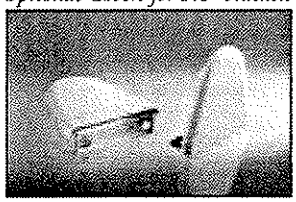
Side Channel or "L" Angle—Prevent direct light gaps at the sides of your shade fabrics by installing side channels or "L" angles. Side channels are ¾" deep x 1⅜" wide, and mount to the jamb or face of the window opening. "L" angles measure 1" x ¾" or 1" x 2¾" (available in black, white, ivory, charcoal bronze or clear anodized finish) and mount inside the jamb.



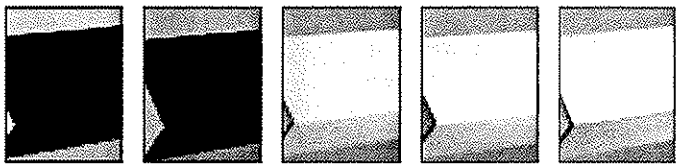
Clutch Brackets



Optional Covers for 1⅝" brackets

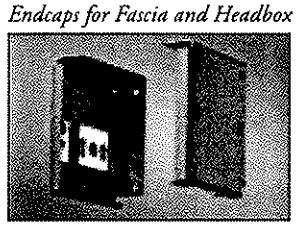


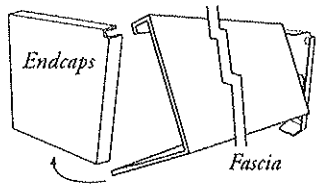
Fascia Finishes



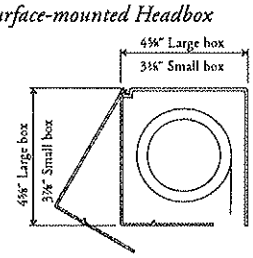
Charcoal Bronze | *Black* | *Ivory* | *White* | *Clear Anodized (standard)*

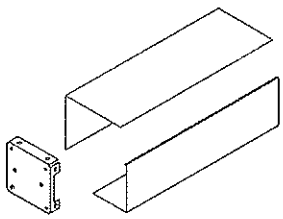
Endcaps for Fascia and Headbox



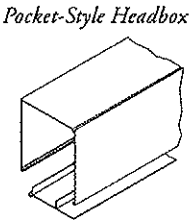


Surface-mounted Headbox

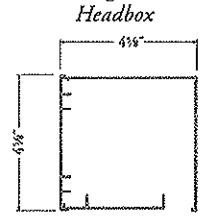




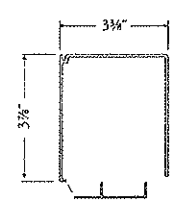
Pocket-Style Headbox



Large Pocket Headbox

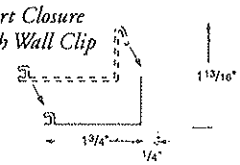


Small Pocket Headbox

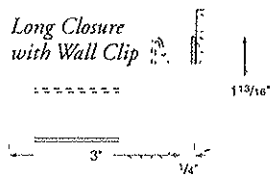


Wall Clip with Closure

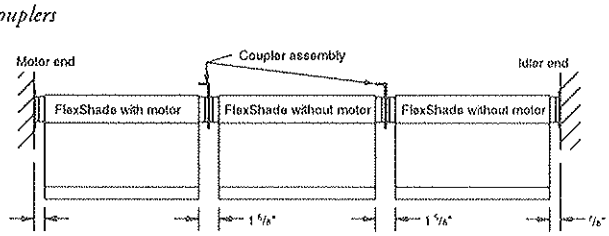
Short Closure with Wall Clip



Long Closure with Wall Clip



Couplers



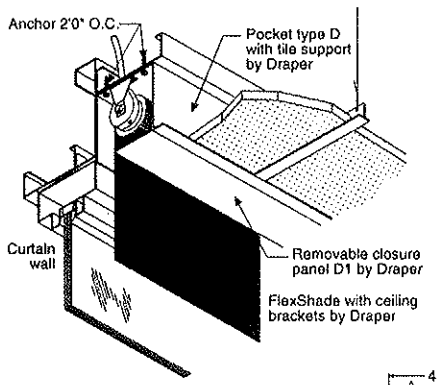
Type D Pocket

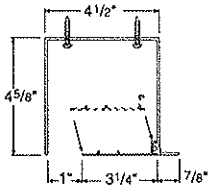
Aluminum pockets offer a convenient architectural solution for mounting either MOTORIZED or MANUAL FLEXSHADES at the curtain wall. For clean, flush installation, use extruded TYPE D POCKET. With bottom closure panel in place, only a narrow slot is visible. (Consult DRAPER to determine size required for your installation).

Installation of TYPE D POCKET in coordination with ceiling finishing allows for later installation of shades; adding flexibility during the construction process. Smooth, continuous closure simply drops into pocket without fasteners for a completed look.

TYPE D POCKET may be anchored through top. Pockets are finished in white. FLEXSHADES are installed using standard ceiling brackets. Suitable for use with clutch-operated or motorized FLEXSHADES.

DRAPER'S TYPE D POCKET cross-section dimensions are 4½" deep x 4⅝" high. Comes in 12' lengths. A tile-support flange along lower edge supports lay-in ceiling. Pre-welded corners and pocket ends are available. Endcaps are optional and are available with or without tile flange.





FlexShade Fabric Selection

DRAPER FLEXSHADES are available with a wide variety of mesh, opaque and room darkening fabrics from national and international manufacturers. Three new fabrics add to the diversity. The following key identifies four properties of shade fabrics and openness factors. Normally, dark colors provide better glare control because they absorb light. Light colors offer better heat control because they reflect heat. Duplex fabrics offer both glare control and heat control.

Natural light can be beneficial to health in the working environment. Ensuring protection against glare and reflection is essential when choosing window shade fabric openness. Window shade fabric openness selection should be based on building position, geographical location or exposure area, office activity, and the view—clear or obstructed.

Use the charts below to make recommendations for window shade openness factor to control glare and work station reflections, for UV protection and for better view through capabilities.

Use the symbols at right to find the fabrics on pages 18-22 that meet your design requirements.

Fabric Properties

= *PVC-Free Fabric*

= *Blackout Fabric*

= *Heat Control Fabric*

= *Glare Control Fabric*

Openness Factor

= *1% Openness*

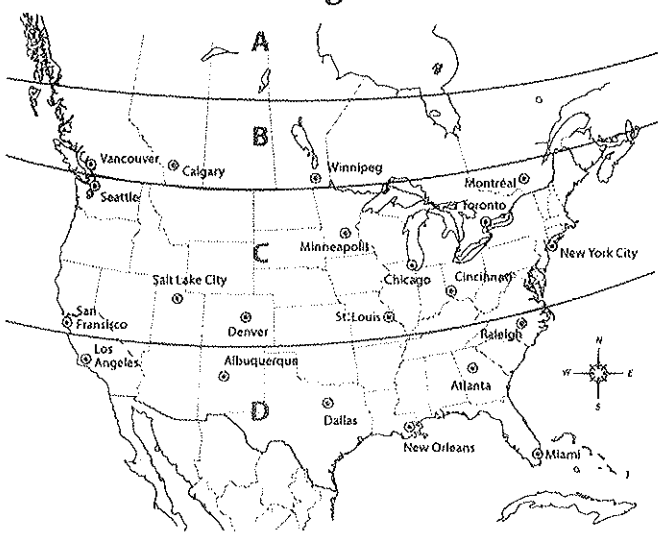
= *3% Openness*

= *5% Openness*

= *10% Openness*

Shade Fabric Selection Based on Building Position and Location

Regions



The compass at right indicates the recommended openness factor based on the orientation of your building.

Openness Factor By Region

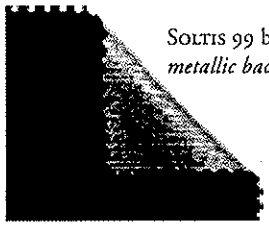
Regions	Clear View	Obstructed View
A	10% / 5% 5% / 3%	10% / 10% 10% / 5%
B	10% / 5% 5% / 3%	10% / 10% 10% / 5%
C	5% / 3% 3% / 5%	10% / 5% 5% / 5%
D	5% / 3% 3% / 5%	10% / 5% 5% / 10%

While every effort has been made to provide an accurate reproduction of the actual fabric colors, we do not recommend the use of this brochure for color matching.

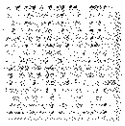
Mesh Fabrics

Contact your Draper representative for fabric swatches and actual availability of fabric for this product. Information provided in this catalog is subject to change without notice.

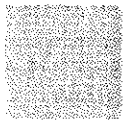
Soltis® 99 by Ferrari—PVC-coated polyester. Laminated metal side to eliminate disagreeable glare, control atmosphere luminosity and preserve natural light for the benefit of work area comfort. 70″ standard roll width. 9 oz./sq. yd., .0126″ thick. Fire rating: NFPA-701. Color not shown: White FS99-2055.



Soltis 99 by Ferrari *is an open weave fabric with a highly reflective, metallic backing that rejects more heat than other traditional mesh fabrics.*



Black FS99-2068



Tan FS99-2056

Yellow FS99-2057

Light Grey FS99-2058

Silver FS99-2059

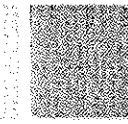
Dark Grey FS99-2073

Ivory FS99-2075

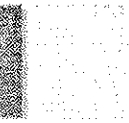
Lemon Yellow FS99-2079

Peach FS99-2080

Platinum FS99-2081

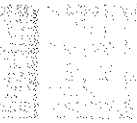


Brown FS99-2082



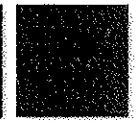
Bisque FS99-2083

Moss FS99-2084



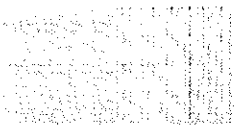
Sky Blue FS99-2085

Dark Blue FS99-2086

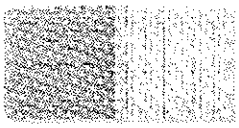


Blue FS99-2087

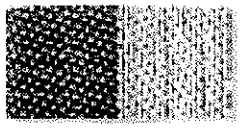
Screen² (XL2®) by Hexcel—Combine thermal performance and visual comfort. Two sides, two functions. Screen² reflects light to control glare and reflects heat at the same time. The most efficient use of Screen² is with the darker side facing your interior and the lighter side toward the outside. Light colors offer better heat control because they reflect heat. Normally, dark colors equal better glare control because they absorb light. When specifying, indicate which faces room interior. Twill weave, PVC-coated fiberglass. 63″ and 98″ roll width. Average 12.5 oz./sq. yd., 022″ thick. The more dense a fabric is, the darker its appearance. Slat hems are heat-sealed. Fire rating: NFPA-701, large-scale test–CAN/LUCS109. *Pictured below are fabric samples in 5% openness factor showing the dark side (on the left) and the light side (on the right). Not shown: White XL2-7105 and White/Sand XL2-7195. Specify which side you prefer to face interior. Screen²® is a Hexcel Reinforcements SA registered trademark.*



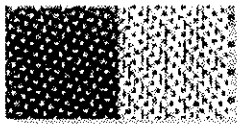
White/Linen XL2-7120



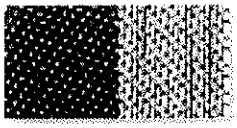
White/Pearl XL2-7135



White/Grey XL2-7150

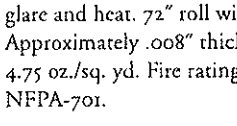


White/Bronze XL2-7165

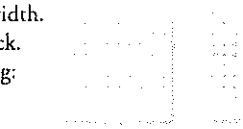


White/Charcoal XL2-7180

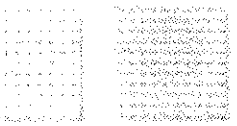
Screen Nature by Hexcel—PVC-free, 2 x 2 basketweave, made of acrylic coated fiberglass yarn. Filters light while blocking glare and heat. 72″ roll width. Approximately .008″ thick. 4.75 oz./sq. yd. Fire rating: NFPA-701.



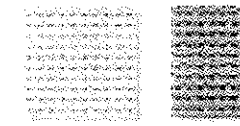
White N5-01



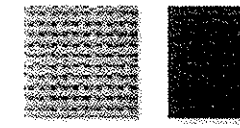
Linen N5-02



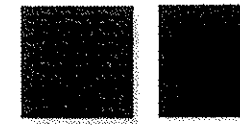
Pearl N5-03



Sable N5-04



Grey N5-05

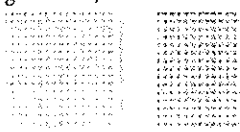


Dark Grey N5-06

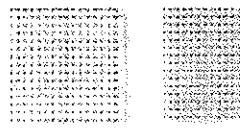
Charcoal N5-07

Screen Vision (XL) by Hexcel—PVC-coated fiberglass available in 9 colors. Thin 2 x 2 basketweave construction providing optimal view to the outside. The "see-through" indoor screen. 74″ and 98″ roll widths (74″ available only on 5% openness). 11.5 oz./sq. yd., .018″ thick. Fire rating: NFPA-701. Color not shown: White XL-7000.

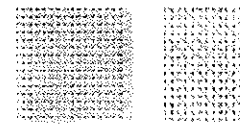
White/Linen XL-7010



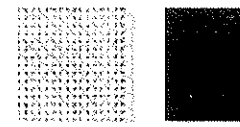
Linen XL-7030



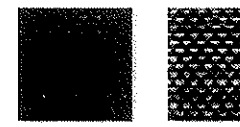
Pearl/Linen XL-7040



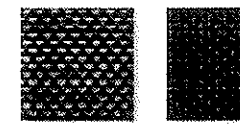
Pearl XL-7050



White/Pearl XL-7020



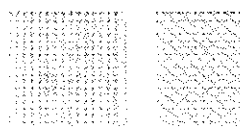
Charcoal XL-7080



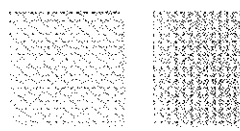
Charcoal/Grey XL-7060

Charcoal/Bronze XL-7070

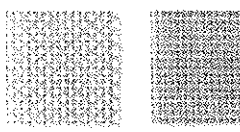
"E" Screen by 3-G Mermet—High quality 2 x 2 basketweave mesh from a premier European weaver. PVC-coated fiberglass available in nine colors. 98″ standard roll width. 11.6 oz./sq. yd., .016″ thick. Slat hems are heat sealed. Fire rating: NFPA-701, both small- and large-scale tests/California U.S. Title 19.



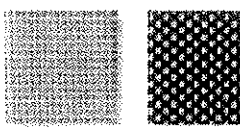
White ME0202



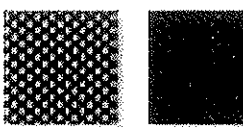
White/Linen ME0220



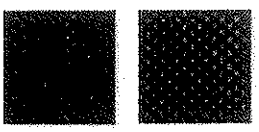
Linen ME2020



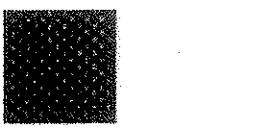
White/Pearl ME0207



Pearl/Linen ME0720



Pearl ME0707



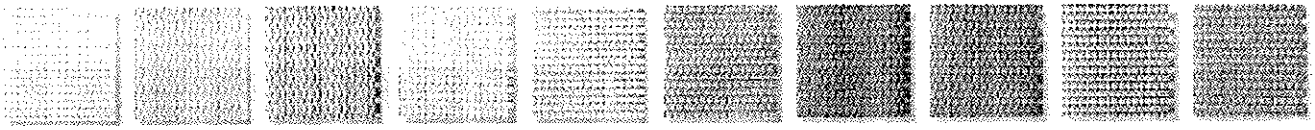
Charcoal/Grey ME3001

Charcoal ME3030

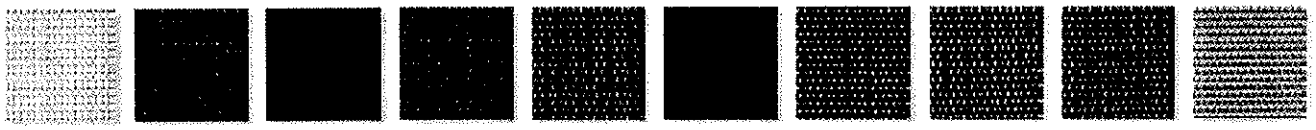
Charcoal/Bronze ME3006

"M" Screen by 3-G Mermet—Thirty colors for interior applications from a premier European weaver.

The high quality 1 x 2 yarn weave provides a woven textile appearance. PVC-coated fiberglass. 61", 78" and 98" roll widths (*six colors in 5% openness available in 122" roll width). Average 12 oz./sq. yd., .022" thick. Fire rating: NFPA-701 both small- and large-scale tests/California U.S. Title 19. Colors not shown: Grey/Ultra MM0141, Grey/Hunter Green MM0151, White/Lotus MM0221, White/Perle MM0207, Perle/Lotus MM0721, Linen/Stone MM2022, Linen/Ultra MM2041, Charcoal/Lotus MM3021, Charcoal/Ultra MM3041 and Charcoal/Hunter Green MM3051.



White White MM0202* | White Canari MM0205 | White Sable MM0210 | White Linen MM0220* | White Stone MM0222 | Perle Canari MM0705 | Perle* MM0707 | Perle Sable MM0710 | Perle Linen* MM0720 | Perle Apricot MM0771



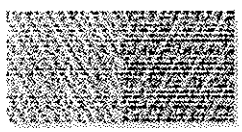
Linen MM2020 | Charcoal Grey MM3001 | Charcoal Bronze* MM3006 | Charcoal Mandarin MM3009 | Charcoal Sable MM3010 | Charcoal* MM3030 | Charcoal Apricot MM3071 | Charcoal Parrot MM3081 | Charcoal Sky MM3091 | Grey Lotus MM0121

"T" Screen Series by 3-G Mermet—Three series of high-quality, woven, PVC-coated fiberglass fabrics. "T" SCREEN offers the benefits of both light and dark yarns in one fabric. Control both glare and heat, while still maintaining a view of the outside world. The most efficient use of "T" SCREEN is with the darker side facing your interior and the lighter side toward the outside. Light colors offer better heat control because they reflect heat. Dark colors equal better glare control because they absorb light. When specifying, indicate which side faces room interior. In all three series, slat hems are heat-sealed. Fire rating: NFPA-701 both small- and large-scale.

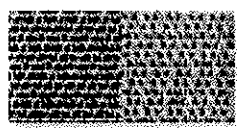
Fabric samples below show the dark side on the left and the light side on the right. The more dense a fabric is, the darker the appearance.

"T" Screen 9601—

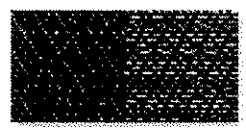
98" roll width.
12 oz./sq. yd., .026" thick.



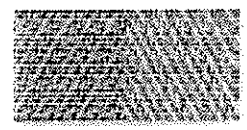
Perle White MT1-01



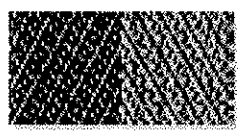
Perle Sable Bronze MT1-02



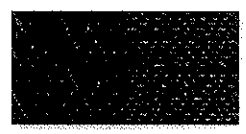
Charcoal Linen Perle MT1-03



Perle Linen Sable MT1-04



Perle Bronze Charcoal MT1-05



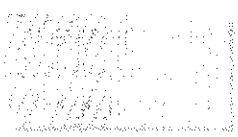
Charcoal Gris MT1-06

Charcoal Charcoal MT1-07

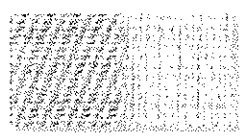
"T" Screen 9603/9605—

(formerly 5100)

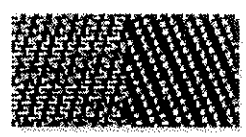
61", 78"and 98" roll widths.
*Select colors in 5% openness available in 120" roll width. Average 12 oz./sq. yd., .026" thick.



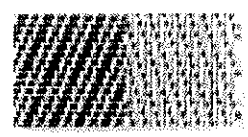
Blanc/Linen* MT5102



Blanc/Linen-Perle MT5103



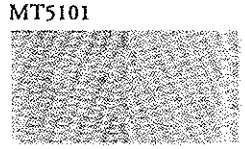
Charcoal/Linen-Perle MT5101



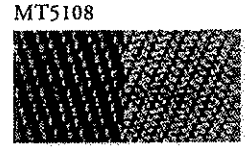
Linen/Gris-Bronze MT5108

Colors not shown:
Perle/Bronze-Charcoal MT5105
Linen/Linen-Perle MT5107
White/Stone MT51013

Perle/Blanc* MT5106

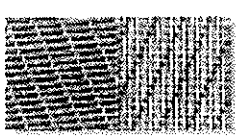


Perle/Lotus MT51015

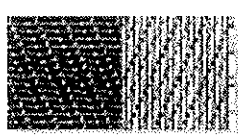


Charcoal/Gris* MT5109

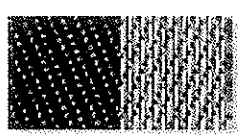
"T" Screen 9705—98" roll width. 12 oz./sq. yd., .026" thick.



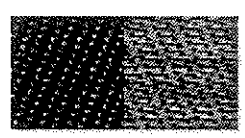
White Sable Bronze MT9701



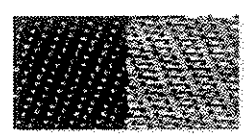
White Grey Charcoal MT9702



White Charcoal MT9703



Charcoal Sable MT9704



Charcoal Linen Perle MT9706

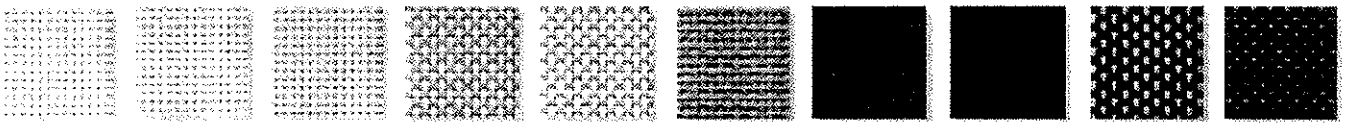
While every effort has been made to provide an accurate reproduction of the actual fabric colors, we do not recommend the use of this brochure for color matching.

Mesh Fabrics

Contact your DRAPER *representative for fabric swatches and actual availability of fabric for this product. Information provided in this catalog is subject to change without notice.*

SheerWeave® Series SW2000/2100 by Phifer

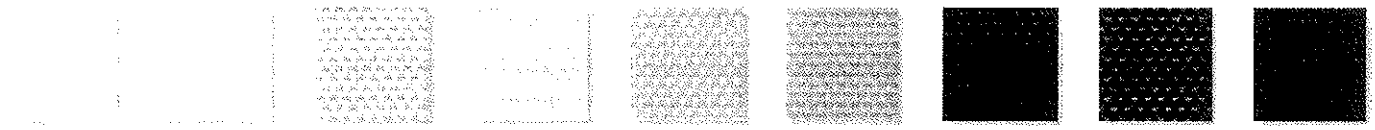
—Fiberglass yarns, 500 denier, coated with sun-resistant PVC vinyl. Non-directional fabric; 2 x 2 basketweave; washable and flame retardant. Openness factor averages 5% and 10% respectively. 13.6 oz./sq. yd., .019" thick. Available in 10 soft neutral colors in both series; 72" and 96" roll widths. Fire rating: NFPA-701-1999TM#1 (small scale); NFPA 101 (Class A Rating); UBC (Class 1); ASTM-G21 and STTM-G22.



White SW2010 | White Bone SW2020 | Bone SW2030 | Bone Platinum SW2040 | White Platinum SW2050 | Platinum SW2060 | Bronze SW2070 | Charcoal SW2080 | Charcoal Grey SW2085 | Charcoal Chestnut SW2090

SheerWeave® Series SW2400/2900/2600 by Phifer

—PVC-coated fiberglass, woven into a full basketweave designed expressly for those applications which require a more opaque and nondirectional fabric. Openness factor averages 3%, 5% and 10% respectively. 63" and 98" roll widths. Average 11.25 oz./sq. yd., .017" thick. Fire rating: NFPA-701.

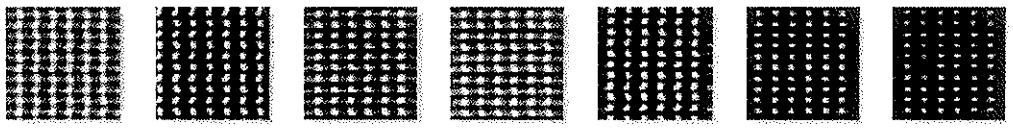


Oyster SW2910 | Oyster/Beige SW2920 | Oyster/ Pearl Grey SW2930 | Beige SW2940 | Beige/ Pearl Grey SW2950 | Pearl Grey SW2960 | Charcoal SW2970 | Charcoal/Grey SW2980 | Charcoal/ Chestnut SW2990

SheerWeave® Series SW3000 by Phifer—

Fiberglass and polyester yarns coated with vinyl and woven into an inconspicuous, vertically oriented mesh. Bacteria and fungal resistant. UV blockage is approximately 86%. 13.46 oz./sq. yd., .028" thick. 14 colors available. 72" and 96" roll widths.
Fire rating: NFPA-701.

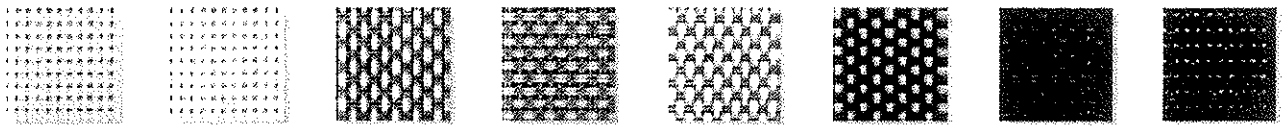
Mushroom Sand SW3005 | Pearl White SW3010 | Custard Cream SW3015 | Sand Dollar SW3020 | Honey Sage SW3025 | Pale Grey SW3030 | Spanish Grey SW3035



Dusty Grey SW3040 | Ninja Grey SW3045 | Mossy Green SW3050 | Harvest Wheat SW3055 | Espresso SW3060 | Black Forest SW3065 | Chocolate SW3070

SheerWeave® Series PW3500/4100/4400 by Phifer

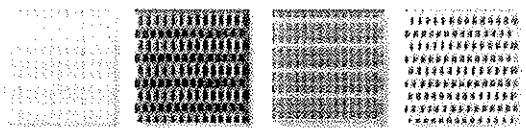
—Vinyl-coated polyester, flame retardant, woven into a 2 x 2 basketweave. Openness factor averages 5%, 10% and 3% respectively. Appearance otherwise identical. Nine colors available in all three fabrics; 63", 84", and 98" roll widths. Average 19.2 oz./sq. yd., .030" thick. Not shown: Snowy White PW3510/4110/4410. Fire rating: NFPA-701 TM#1(small scale); California U.S. title 19 (small scale); NFPA 101 (Class A Rating); UBC (Class 1); British Standard 5867; NFPA 701-TM#2 large scale; CAN/ULC S109-M-87.



Bone PW3520 | Linen PW4160 | Greystone PW4125 | Soft Grey PW3540 | Granite PW4445 | Ash PW4455 | Tobacco PW4480 | Ebony PW4170

SheerWeave® Series PW4800 by Phifer—

Vinyl-coated polyester, flame retardant. Bacteria and fungal resistant. Offers privacy and maximum UV blockage. 96" roll width. 18.5 oz./sq. yd., .030" thick. Fire rating: NFPA-701-1999 TM#1(small scale); California U.S. title 19 (small scale); NFPA 101 (Class A Rating); UBC (Class 1); British Standard 5867.



Alabaster PW4810 | Slate PW4870 | Stone PW4850 | Grey PW4840

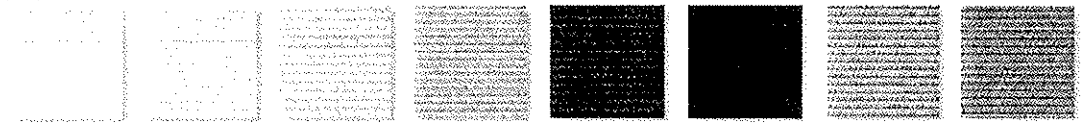
SheerWeave® Jacquard Series SW5000 by Phifer—This unique collection of jacquard designs takes the function of sun control to a whole new level of interior window treatment decor, making sun control truly beautiful. The line, inspired by nature, is a collection of 16 different fabrics, woven with diverse textures and rich colors. Made with an open weave that lets in natural light while filtering out the sun's heat. Openness factor is 5% to 10%. Available in 74″ roll widths. Average 13.0 oz./sq. yd. to 14.9 oz./sq. yd., .041″ thick. Fire rating: The diversity of SW5000 fabrics means that different colors and weaves meet different standards for fire retardancy. Please inquire about colors, weaves, and fire retardant standards.

Sample shown at 100% scale is Marble Slate SW5052.

Room Darkening Fabrics

SheerWeave® Series SW7000 by Phifer—Opaque, PVC-free polyester with the look and feel of rich cloth. Acrylic foamed backing. 94″ roll width, .018″ thick, 10 oz./sq. yd. Fire ratings: California U. S. Title 19 (small scale), NFPA 701-1999 TM#1 (small scale), British Standard 5867.

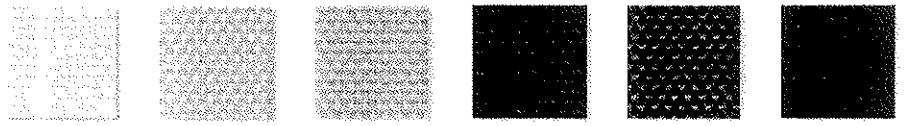
NEW



White SW7000-P62 | Birch SW7000-P63 | Sand SW7000-P64 | Wheat SW7000-Q57 | Graphite SW7000-V39 | Onyx SW7000-V40 | Canyon SW7000-V41 | Mushroom SW7000-Q58

SheerWeave® Series SW7100 by Phifer—PVC-coated fiberglass laminated with a 2-ply PVC film. 72″ roll width, .023″ thick, 19.8 oz./sq. yd., opaque. Meets NFPA-701-1999 TM#1 (small scale) and California U.S. Title 19 (small scale) standards.

NEW

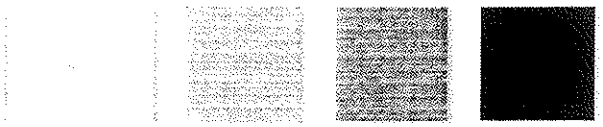


White SW7100-P02 | White/Bone SW7100-P04 | White/Platinum SW7100-P05 | Bone SW7100-Q05 | Bone/Platinum SW7100-Q06 | Charcoal SW7100-V21

1260 by Hexcel—100% glass fabric coated with fireproof acrylic. PVC–free, blackout fabric. White acrylic back. The classic blackout with textile feel. Available in 5 colors; additional colors available with minimum quantity requirements. 71″ roll width. 12.4 oz./sq. yd., .0138″ thick. Meets NFPA-701 fire retardant standards.

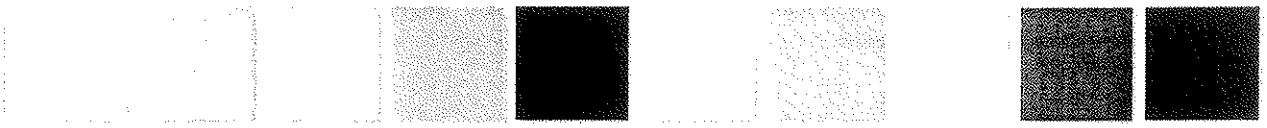
White H1260-0100 | Grey H1260-0741 | Beige H1260-0511 | Charcoal H1260-0940 | Black H1260-0041

1309 by Hexcel—100% glass fabric coated with fireproof acrylic. PVC-free, blackout fabric. Approximately .011″ thick. 82½″ roll width. 4.75 oz./sq. yd. Meets NFPA-701 fire retardant standards.



White H1309-0100 | Cream H1309-0212 | Beige H1309-0211 | Grey H1309-0242 | Black H1309-0243

SunBloc Series SB9000/9100—Whenever true opacity is required. Perfect for rooms where audio visual presentations are made. Room-darkening fabric constructed of tough, close-woven fiberglass coated on both sides with durable, sun-resistant, flexible vinyl. Flame, fade and mildew resistant; washable and tear proof. 36″, 45″, 54″, 63″ and 72″ roll width. 12 oz./sq. yd. Meets NFPA-701 fire retardant standards. Specify SunBloc in any of 14 opaque colors: 8 duplex (with white exterior), and 6 with the same color inside and out. Use SunBloc as part of a LightBloc Shading System when total darkness is needed. Also available, but not shown—Black/White SB9170, Burgundy/White SB9180, Navy/White SB9190.

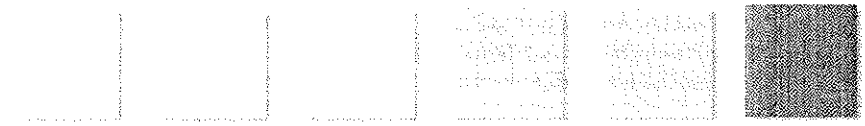


White SB9010 | Ivory SB9020 | Grey SB9040 | Champagne SB9060 | Tan SB9030 | Black SB9050 | Putty/White SB9150 | Wheat/White SB9130 | Grey/White SB9110 | Forest/White SB9160 | Chocolate/White SB9120

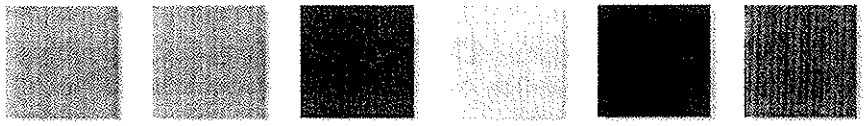
More Room Darkening Fabrics

Roc-rol™ by Rockland—

Roc-rol opaque fabric by Rockland Industries provides an economical room darkening fabric in a variety of colors. The cotton/poly blend fabric has a natural look and is relatively thin—so tall shades will have smaller bundle sizes than those made with thicker fabrics. All colors are white on the backside providing good solar reflectance. 84″ roll width. 13.5 oz./sq. yd., .025″ thick. Meets NFPA-701 fire retardant standards.



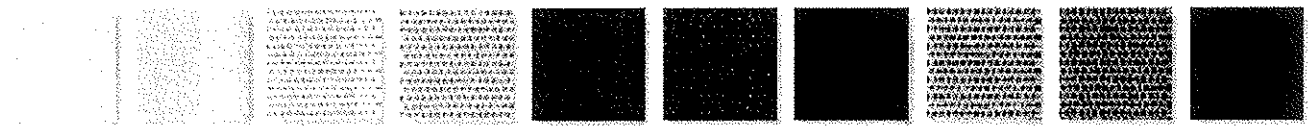
White RR-84101 | Ivory RR-84102 | Pearl RR-84103 | Beige RR-84104 | Ecru RR-84105 | Slate RR-84106



Sage RR-84107 | Jade RR-84108 | Plum RR-84109 | Silver Grey RR-84110 | Black RR-84113 | Hazelnut RR-84112

Flocké by 3-G Mermet—

Opaque, PVC-free fiberglass base material from one of Europe's premier weavers. White exterior with a choice of 15 interior colors. Room side of fabric has a soft woven finish, unlike most blackout fabrics. Perfect for areas requiring opaque shades with an elegant look. 78″ roll width. Rot proof. Meets NFPA-701 fire retardant standards. Additional colors, not pictured: Mangue (mango) MF1611, Soleil (gold) MF1607, Seychelles (turquoise) MF1612, Chêne (brown) MF1617, Coraline (light beige) MF1625, Angora (pale grey) MF1626.

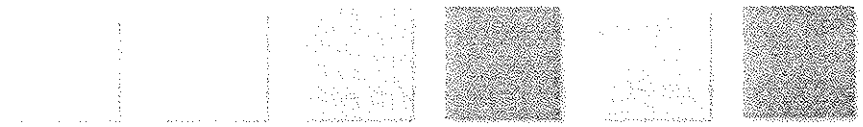


Blanc MF1600 | Sahel MF1623 | Mississippi MF1618 | Beige MF1603 | Cuivre MF1615 | Petrole MF1614 | Encre MF1619 | Chartreux MF1608 | Loutre MF1609 | Noir MF1606

Translucent Fabrics

1277 by Hexcel—

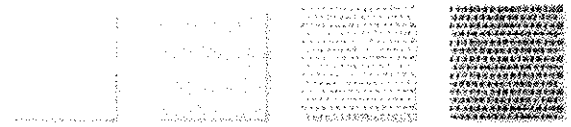
A light filtering, PVC–free and halogen-free, 1% open fabric made of acrylic coated fiberglass yarn. Translucent privacy fabric filters light while blocking glare and heat. Available in 6 colors; additional colors available with minimum quantity requirements. Meets NFPA-701 fire retardant standards. 71″ roll width. 5.75 oz./sq. yd., .0098″ thick.



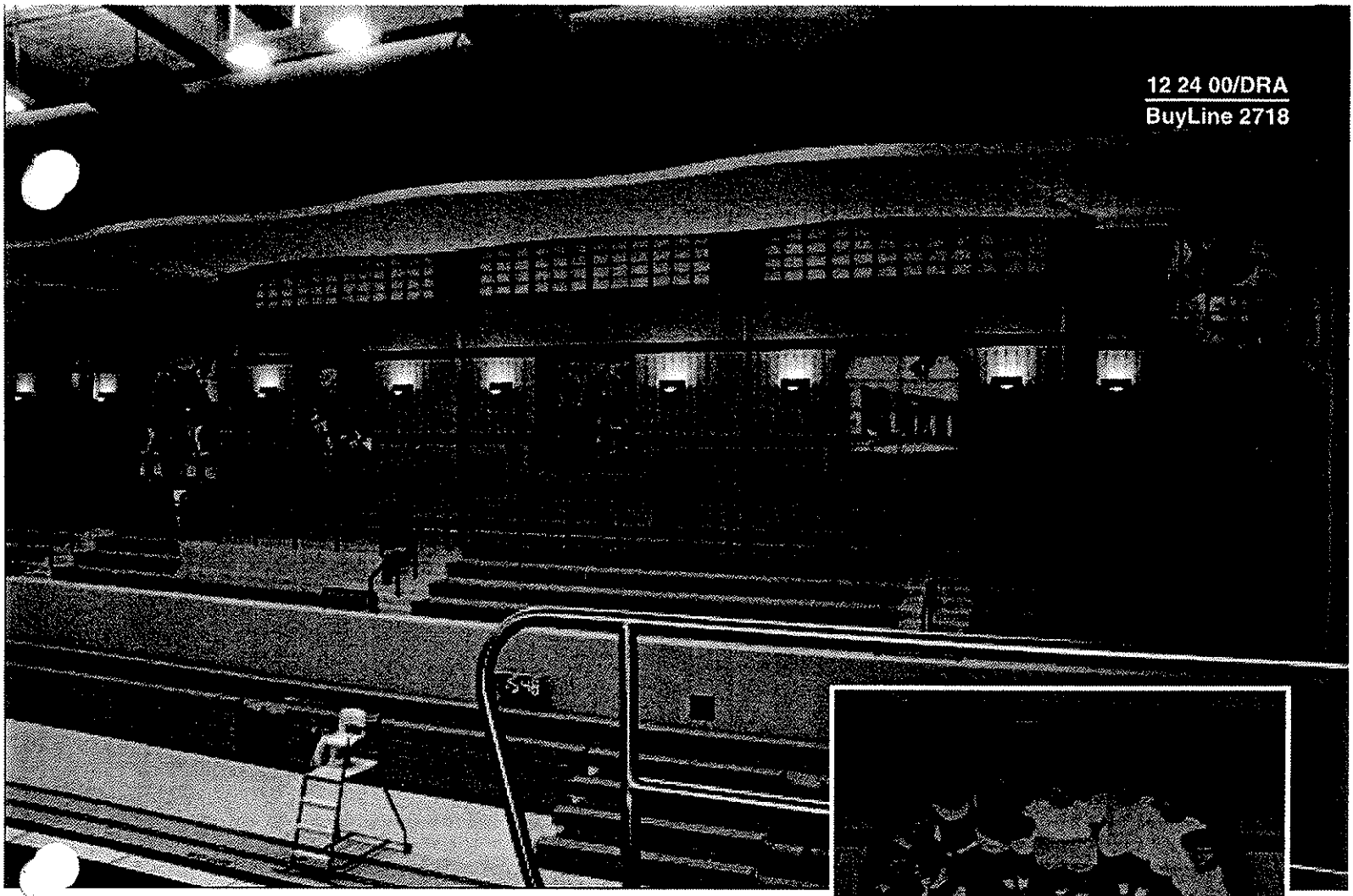
White H1277-0200 | Cream H1277-0718 | Beige H1277-0816 | Grey H1277-9441 | Light Grey H1277-0945 | Silver H1277-9744

Obion by 3-G Mermet—

Room darkening fiberglass base material. Looks similar to FLOCKÉ, but with a softer feel. Anti-static treated. Rot proof. White exterior with a choice of 4 interior colors. Slight visible transmittance of light with the colors Sahel and Blanc—each has a slight translucency, but the look of an opaque material. 78″ roll width. Meets NFPA-701 fire retardant standards. Not for SKYLIGHT FLEXSHADES. Seams and slat hems sewn, not heat sealed.



Blanc MO1600 | Sahel MO1623 | Mississippi MO1618 | Chartreux MO1608

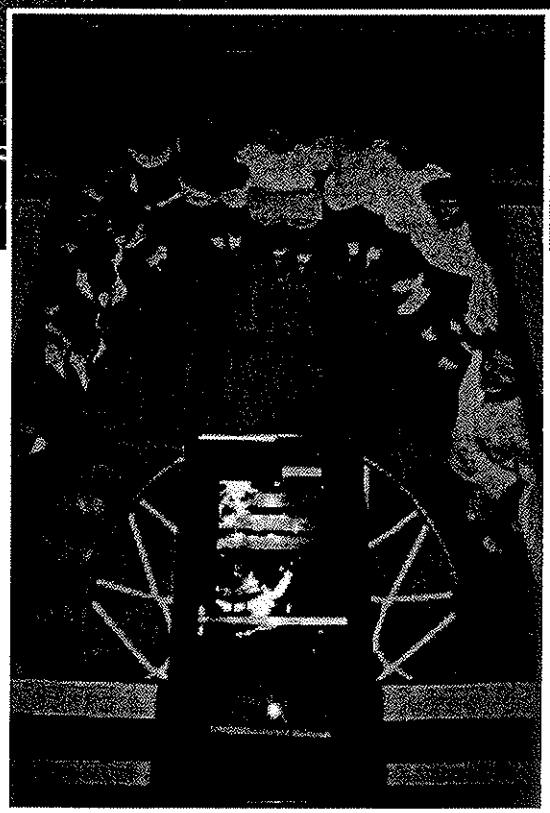


Graphics on FlexShades

Put your logo or virtually any graphic on shades.

You provide the artwork, and we'll print your logo or graphic. Ideal for situations where restrictions are imposed on signage. You can put your logo or ad on the side of the shade facing out, and display it to the world. Graphic can be printed on either side of the window shade. (See your DRAPER representative for restrictions and available fabrics.)

We use a high quality, digital four-color process to assure a crisp and clear image. Order for graphics must accompany shade order.



Graphic FlexShades with Soltis® 99 fabric at Southeast Missouri State University, Cape Girardeau, MO. Installation: Jack F. Dale & Associates. Photography: Emily Bach, Columbia, MO.

Graphic FlexShades with SheerWeave® PW3500 fabric at the new home of Alvin Ailey American Dance Theater—The Joan Weill Center for Dance. Architects: Iu + Bibliowicz Architects LLP. Photography: © 2005 Bruce Katz. All located in New York, NY.

Fenestration Data

Draper offers test data for the specifier's use in controlling light and heat, view and privacy, and glare level. Representative figures appear below; contact Draper to receive this data on any fabric we offer.

Solar transmittance (T_s), reflectance (R_s), and absorptance (A_s) add up to 100%, indicating that all the sun's energy striking the shade is reflected, absorbed, or passed through. Lighter colors have a high R_s factor, and reduce heat most effectively. Dark colors have a low T_s factor and reduce light most efficiently.

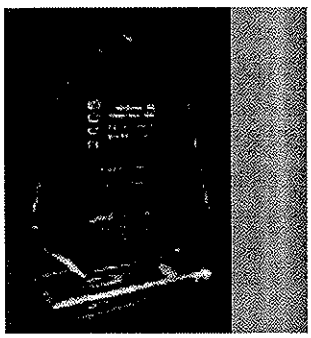
Visible transmittance (T_v) indicates the amount of glare likely to be perceived. This is most critical when windows are oriented to face direct sunlight. Darker colors minimize glare.

Openness factor (OF) concerns the density of the weave. Denser weaves afford more privacy, while more open weaves provide a better view.

Solar-Optical Properties for SheerWeave® PW3500—

		T_s	R_s	A_s	T_v	SC ¼" Clear Glass
PW3510	Snowy White	16	68	16	12	.32
PW3520	Bone	14	49	37	12	.44
PW3525	Greystone	10	34	56	9	.52
PW3540	Soft Grey	8	27	65	9	.56
PW3545	Granite	11	41	48	10	.48
PW3555	Ash	7	11	82	8	.66
PW3560	Linen	15	57	28	13	.39
PW3570	Ebony	6	5	89	8	.69
PW3580	Tobacco	7	5	88	8	.70

Award-Winning Marketing Support



The McGraw-Hill Construction Information Group, publishers of Sweets, awarded Draper, Inc. its "Best in Sweet's—Most Outstanding Marketplace Program (Print and Electronic)" award for 2005. According to Sweets, "Winners in this category represent the finest examples of marketing in the construction Marketplace. Utilizing print and electronic programs, they create a complete, easy-to-use resource for industry professionals."

Please visit us 24-hours a day on the Web at www.draperinc.com to download specifications, CAD details, submittals and installation instructions. To receive an architectural specification CD-ROM, product cut sheets or additional literature, contact Draper by calling, faxing or e-mailing.

Shading coefficients (SC) are best interpreted by heating/cooling professionals. Lower SC figures indicate greater shading efficiency.

All fenestration data is based on laboratory conditions. Results may vary in actual field installations.

Solar-Optical Properties for Screen²—

	T_s	R_s	A_s	T_v	SC—¼" Clear Glass
3% (.023" thick, 13.6 oz./sq. yd)					
XL2-7100 White	18	64	18	11	.35
XL2-7115 White/Linen	14	61	25	10	.36
XL2-7130 White/Pearl	11	56	33	9	.38
XL2-7145 White/Grey	7	50	43	6	.42
XL2-7160 White/Bronze	6	48	46	5	.43
XL2-7175 White/Charcoal	6	47	47	5	.43
XL2-7190 White/Sand	9	50	41	8	.38
5% (.023" thick, 12.7 oz./sq. yd)					
XL2-7105 White	20	63	17	12	.36
XL2-7120 White/Linen	14	62	24	10	.37
XL2-7135 White/Pearl	13	62	25	9	.39
XL2-7150 White/Grey	7	51	42	7	.43
XL2-7165 White/Bronze	5	50	45	6	.44
XL2-7180 White/Charcoal	6	48	46	6	.44
XL2-7195 White/Sand	11	61	28	8	.39

Screen² is also available with 10% openness factor.

A Word About Draper

Established in 1902 as a manufacturer of window shades for schools, today Draper offers three major product lines in addition to our FlexShade Systems—projection screens and related audio-visual equipment (CSI section 11 52 13); lifts and mounts for video projectors and plasma displays (CSI section 27 41 23); and gymnasium equipment, featuring the EZ Fold basketball backstop (CSI section 11 66 00). We welcome you to visit our web site for complete specifications, CAD details, submittals and installation instructions for all of our product lines: www.draperinc.com.

Continuing Education

Draper, Inc. is a Registered Provider for the American Institute of Architects (AIA) continuing education program. The AIA/CES program allows architects to keep current and gain new knowledge and skills. It also enables AIA members to fulfill a membership requirement and meet state mandatory continuing education requirements. The course below offers AIA members one AIA/CES learning unit.

Window Shades 101 provides participants with a comprehensive strategy for selecting window shade fabrics, reviewing elements such as texture, health, safety, welfare and energy conservation. For more information, visit www.draperinc.com or www.aia.org.

On the cover: Clutch-Operated FlexShades installed at Saatchi & Saatchi Rowland, Rochester, NY. Photography © 2004 Tim Wilkes Photography.

Unless noted otherwise, photos in this publication © Draper, Inc.

DRAPER

SEE US IN DIRECTORY CATALOG FILES CD SWEETS.COM

411 S. Pearl St., Spiceland, IN 47385 USA ▮ 765-987-7999 ▮ fax 866-637-5611
e-mail drapercontract@draperinc.com ▮ www.draperinc.com

Copyright © 2005 Draper, Inc. *Form FS2006* *Printed in U.S.A.*